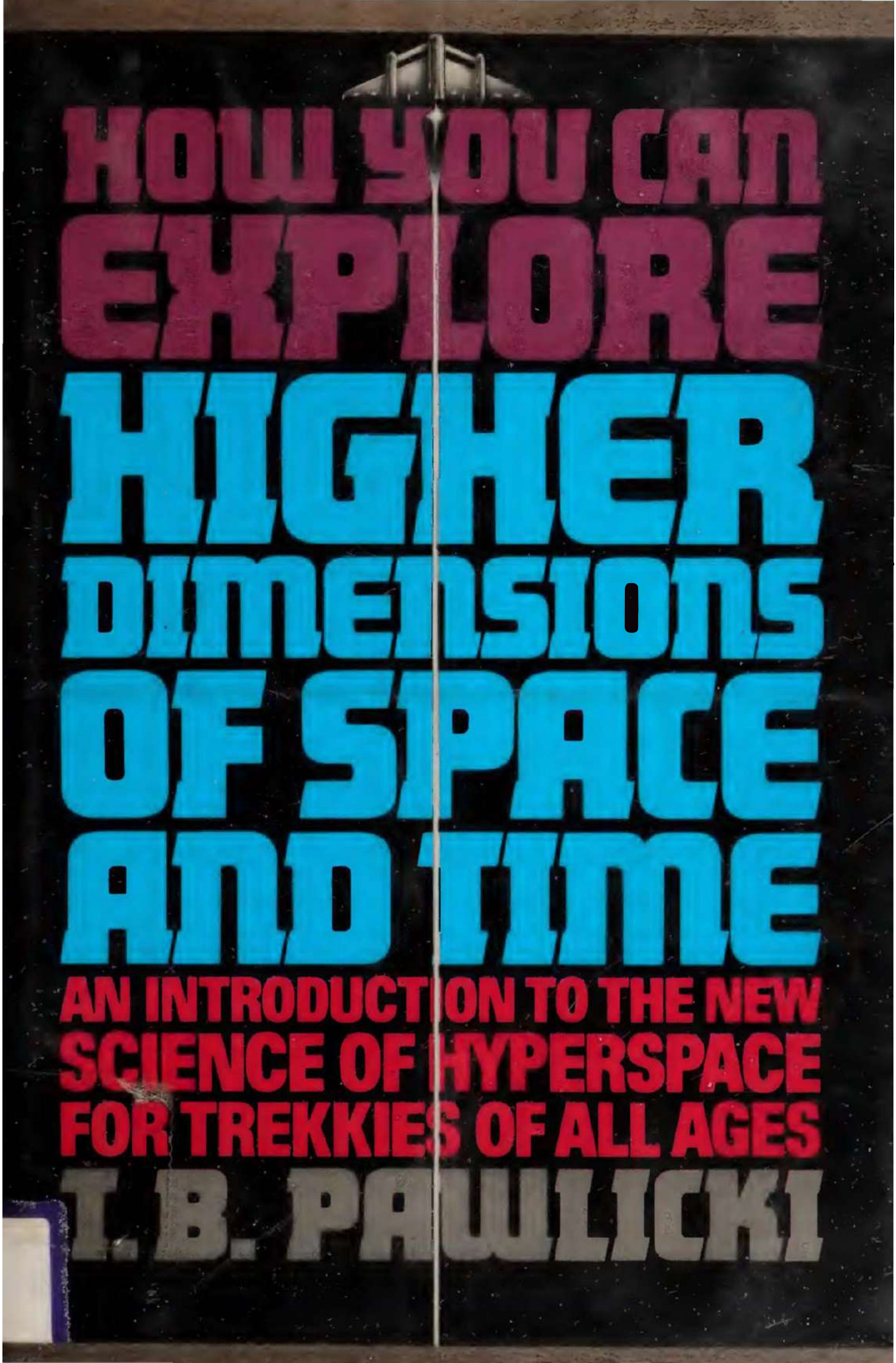
HOW YOU CAN
EXPLORE
HIGHER
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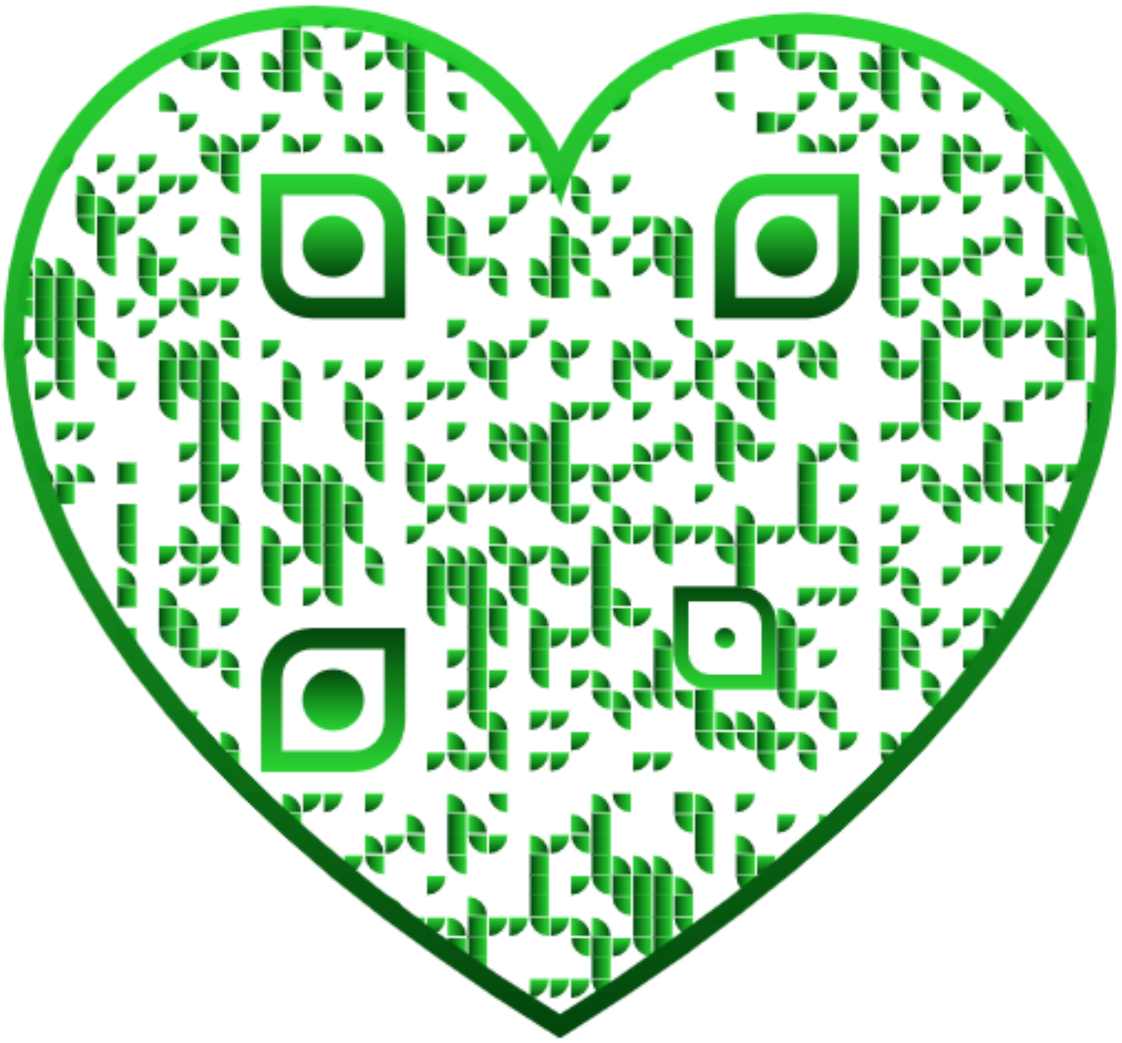
OF SPACE
AND TIME
AN INTRODUCTION TO THE NEW
SCIENCE OF HYPERSPACE
FOR TREKKIES OF ALL AGES
T. B. PAWLICKI



How You Can Explore

HIGHER DIMENSIONS OF SPACE AND TIME

T. B. PAWLICKI

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PREFACE

The mail brought a journal of the Invisible College reporting advances made since the material in this book was first presented two years ago at the University of Toronto, just in time to include a last-minute update.

The homopolar motor of the American Bruce De Palma, was proven at the University of Denmark to deliver 300% superefficiency. Thomas Townsend-Brown has assigned his discoveries to a research and development corporation in California, where his work proceeds in secrecy. Some of Townsend-Brown's American patents are: #3,107,206, #3,227,901, #1,974,483, #2,949,550, #3,018,394, and #3,022,430. Because I am not qualified to read electrical engineering, I have not attempted to verify these patent disclosures. John Searle has set up a company in England to build a factory for his flying saucer. Dr. Sinichi Seike of the University of Tokyo has entered into contract with Hitachi to develop the transistorized antigravity field generator he demonstrated at Toronto. Dan Winter read a paper at the University of Portland, Oregon, describing Tesla's electric car powered from spacic energy drawn from the Earth. Finally, Tom Bearden has organized the American Association for Gravity Field Energy, Post Office Box #7004, Huntsville, Alabama, 35807. U.S.A. Much more has happened, but there is no space to include it all here.

I haven't been slack at my oars, either. Since the original manuscript of this book was submitted for editing, I managed to apply the geometry of

Chapters 7 and 8 to solve the step-by-step engineering principles of the Mark III Flying Saucer.

The essential demonstration is performed with an electrically conductive disc. This is the bench model prototype like the one Townsend-Brown used for his initial studies of the Biefield-Brown Effect 50 years ago. An electric voltage is passed between the rim and the center. As voltage is increased, accelerating electrons meet with increasing resistance in the material of the disc, as explained in Chapter 9. As resistance increases, so does the frequency of the vibrating electrified particles. Increasing resistance rotates the wave flow around 90° to generate a current flowing around the disc, following the Right-Hand Rule; this phenomenon is called the Hall Effect. The Hall Current is seen as lights revolving around the rim of flying saucers. High voltage ionizes the boundary layer of the air on the saucer to generate the characteristic glow that is called a corona discharge. Because the glow is produced by vibrating atomic particles at high frequency, it proves the equation of frequency and voltage described in Chapter 7. When particle velocity exceeds wave velocity in the disc, the current is stopped by a shock wave of infinite resistance, as described in Chapter 9. As explained in Chapter 7, an infinite value is the coefficient of the 90° rotation and expansion to a higher dimension described in Chapter 3. As soon as resistance becomes infinite in the levitating disc, it becomes zero in the boundary layer of air, so the high-voltage electric waves arc. At zero resistance, the random molecular motion of heat in the boundary layer drops to a state of superconductivity, and power consumption is nominal. There can be no doubt that this operation really happens, because this is the way neon lights work. The reason cold cathodes don't fly is that it takes 4,500,000 volts to crank up the stock Model III Flying Saucer that comes off the assembly line.

Now, if the frequency of the vibrations is tuned to the lowest common harmonic overtone of the molecules of the disc's material and the frequency of the terrestrial gravitic field, phase resistance will support and raise the disc, using the same kind of pressure that hits you like a baseball bat when you touch a live wire, like a propeller or a jet. In order to stop the Biefeld-Brown rotation, an equal and opposite current must be imposed across the disc. The current is not shorted when the countercurrent is supplied by reflecting the primary current. A pair of mutually reflecting coils is a Tesla coil, and any youngster worthy of his *Star Wars* laser gun knows that a Tesla coil of this configuration will function as a laser. The flying saucer and the holy man walking on water or fire, as explained in Chapter 1, are both lasers.

The first practical problem in engineering a flying saucer is reducing the

starting voltage. From Searle's disclosures, he seems to have achieved a superheterodyned, high-voltage field from a pair of contrarotating electromagnetic fields. The De Palma homopolar motor seems to achieve the same effect by exceedingly fine tuning of the rotor. Seike simply twisted the circuitry around 180° to generate the superheterodyned antigravity field by solid-state engineering.

When Henry Moray was inventing his valve, as described in *How to Build a Flying Saucer,* Tesla coils and germanium crystals were the state of the art. Moray's emphasis on the purity of his crystals is probably a red herring; the real secret of his valve was a distorted Tesla coil inside the little black box that he never opened in public. Without a comprehensive field theory, Moray had to have discovered the configuration by accident while he was only trying to raise voltage, and he was never able to build successive valves without exhausting trial and error simply because he never knew how he did it in the first place.

Tesla wrote of his fascination with distortions of his essential coil; the plane coil was his greatest interest. A plane coil is a flying saucer. Although Tesla never published anything on antigravity, he did describe his concept of a laser and he often announced his Shield, a dome of pure energy that could be raised to cover an entire city, making it impervious to any military attack. Now, if you just turn a Biefeld-Brown disc upside down, the field that drove it when it is right side up now drives away everything near. In other words, the secret Tesla Shield that promised to make war—even nuclear war—impractical, is nothing but an overgrown flying saucer, upside down, using the Earth itself as the primary coil. Tesla proved beyond doubt the titanic energies that can be tapped from the Earth when his first planetary coil drew so much power that it blew out all the generators in his county. It is inconceivable that Tesla could have described every effect of the Mark III Flying Saucer without knowing how to build one. This secret could very well be included in the Tesla papers still in the Secret Service vaults.

Nothing can stop an idea when its time has come. What Tesla proved by design, Moray, Biefeld-Brown, Searle, Cater, De Palma, and many others are rediscovering by accident. I even rediscovered it while trying to put a book thesis together. Since the First International Symposium for Nonconventional Energy Technology, the same essential concepts are being dicovered all around the world. The technology for free energy and antigravity can eliminate war and provide a global crusade of interplanetary exploitation to bleed the passions of war to outer space where they belong. This book is a good start to learn the future science.

What is *time?* What is *space?* What is *dimension?* What is *reality?* What are *parallel realities?*

What is *God?* What is *salvation?*
What is *heaven?*

Why are you *sick* or *healthy?* Why are you *rich* or *poor?*
Why are you *happy* or *miserable?*

What is *orgasm?*

The General Theory of the Integrity Effect is the most challenging scientific theory published since the theories of Copernicus and Darwin. When presented to an international forum of the world's most creative scientists at the University of Toronto, it was hailed as the "most radical, most revolutionary, and most lucid" scientific theory of modern times.

INTRODUCTION

If you take a course in business accounting, you are reasonably sure of being able to set up a bookkeeping system by the time you graduate. If you take a course in scuba diving, it is practically certain that you will learn to explore the sea with reasonable safety. But if you enroll in a fine arts course, your chance of developing sufficient competence to interest anyone except yourself is somewhat less than 10 percent. If you happen to be one of the 10 percent, there is a high chance that you could have done just as well without formal instruction so long as you maintain a regimen of practice. If you committed your life savings to a guru advertising lessons in spiritual development, what would you have to show for your investment that you could *prove* to be spiritual?

Competence in the practical arts is communicated efficiently through formal instruction whereas formal education in the *im*practical arts communicates little more than the stimulation of fellowship. You are provoked to wonder why.

Conventional wisdom excuses a high rate of student failure by the concept of "talent." Students with talent learn, students without talent can't. The parties in power always lay the blame on their victims so that teachers are not constrained to change their habits. But *language,* the most abstract and complex of all arts, is mastered by every child. Shiniki Suzuki proved that

everyone can learn to play a musical instrument by the age of five—as long as hypothetical talent is not repressed by conventional wisdom.[1]

Practical and impractical arts are communicated differently because of the fundamental dichotomy of our civilization. In our concepts, experience of material reality is categorically separated from the experience of mental and spiritual reality. Material is real; everything else is "unreal." This division of experience is not merely an accident of culture, like table manners. The two categories are manifest in the division of function between the two hemispheres of the brain. This dichotomy creates culture. Our culture depends on this dichotomy for its very existence; therefore, the *unreal* must be verbalized in languages that make practical results discouragingly difficult.

Modern Western civilization's cultural consciousness is dominated by the left hemisphere of the brain. Our culture expands by left-brain realities subsuming the right-brain unrealities. In other words, our practical arts develop by taking over our impractical arts; technology advances to control natural forces hitherto believed sacrosanct in the spiritual realm.

When the cycle of civilization is complete, both hemispheres of the brain, representing both sides of human nature, are united to create a whole man, or holy man. Science and technology, therefore, have the very same teleology as religion; science and religion are competitors in the human-improvement business. All our wonderful electronics and powerful engines are actually spiritual exercises of heuristic value. Science does not merely resemble religion, with its dogmas, canon of saints[2], and hierarchy of authority. Nor has science merely replaced religion in an age of lost faith in Divine Providence. Whereas the mystical religions are the natural expressions of cultures dominated by the right-brain and progressing to the left, science must be recognized as the natural and inevitable religion of Western Civilization—and science is progressing to the right hemisphere from the left.

The isolation of practical experience from the impractical, the real from the unreal, is maintained by language. We have a left-brain language and a right-brain language. The words and grammar used to describe the operations of bookkeeping and swimming correspond point-to-point with the actual operations performed. Consequently, students who follow instructions explicitly will duplicate the operations of the master—within an acceptable margin for unskilled error. On the other hand, the words and grammar describing the operations of creativity and other mental activities do not

[1]Genetically damaged children are an excepted minority.

[2]Metric nomenclature constitutes the canon of scientific saints.

conform to what is actually happening. Therefore, students with a talent for the impractical arts are those who do as the master does, and not as he says. In other words, students competent in semantics are selectively disadvantaged in learning the impractical arts by formal instruction until they give up in frustration, while students unaware of verbal imprecision are favored. Consequently, semantic confusion is perpetuated in the impractical arts because the skills are passed through disciples who don't tell it like they do it.

The truth of a verbal language increases as an impractical art becomes practical (*i.e.*, when the unreal becomes real). The converse process also occurs to prove the rule; verbal language loses its truth as a practical art becomes impractical. For example, in our society (unlike Islam), pictorial art has a high practical value. Before photography was perfected, pictorial draftsmanship had to be taught efficiently to meet the commercial demand for the product. Therefore, everyone who went to art school became a competent illustrator, creative talent notwithstanding. But as soon as photography became more practical than hand illustration, instruction of elementary pictorial techniques became confused with aesthetic nonsense. Today, academically dull boys are channelled to trade schools where, in two years, they become more competent in drawing than the supposedly gifted students in art schools. Drafting, you see, is *practical,* whereas illustration for spiritual expression is impractical. Apparently the main advantage gained by possessing supposed artistic talent is a license to draw nudes, no matter how crudely.

The language of science is mathematics. Correlative with the expansion of consciousness from the left-brain to the right, the progress of mathematics proceeded from the particular real numbers of arithmetic to the whole structures of geometry (right-brain gestalts) and then to the imaginary numbers of algebra. Statistical terms made it possible to describe group parameters, differentials made it possible to calculate transformations, and vector analysis explains spontaneous phenomena hitherto attributed to willful spirits.[3] Mathematics has finally attained the sophistication to unite mind with matter in a Unified Field Theory.

We can infer that we are living in the time of the Apocalypse prophesied by mystic holy men because all natural processes accelerate exponentially. The point at which a self-sustaining acceleration becomes noticeable in a natural process is called "critical mass." Western consciousness reached critical mass when Newton formulated the calculus necessary to relate time

[3]It's remarkable how quickly some scientific authorities accepted the reality of spontaneous phenomena when forms of mathematics were developed to make them necessary, after they had denied the existence of the same phenomena as long as they were attributed to spirits.

and energy with motion and matter. When Einstein refined Newton's calculus to prove that ponderable matter and radiant energy are mutually convertible, the chain reaction of the modern era became a China Syndrome.

Since the modern era began, the Unified Field Theory has been the Holy Grail of the scientific world. Einstein spent most of his long life trying to prove an equation relating the gravitational field of matter to the electromagnetic field of radiant energy, without any published success. Insofar as the general public is informed, Einstein said the last word on the subject, and the quest continues.

It is not for insufficient knowledge or lack of intelligence that the Unified Field Theory defies the combined efforts of the greatest scientific authorities who ever lived. In fact, Socrates could elicit a solution from a bright child over lunch. The difficulty is not mathematical. It is a mental/emotional block. Our culture prohibits the left brain from knowing what the right brain is doing.

A high school student can spot the mental block that throws the scientific juggernaut into consternation. Everyone knows that energy is a function of time. Therefore, proving that matter is equivalent to energy also proves that matter is equivalent to time. But Einstein also proved that time is mutually convertible with space. Therefore, an ineluctable corollary of $e = mc^2$ is *matter is space*.

Now, the fundamental concept of our culture states that matter is that which exists, and space is that which does not. In other words, Einstein proved "That which is, is that which is not." Anyone who is well-read enough to proceed with this book will recognize this paraphrase of $e = mc^2$ as the direct contradiction to Aristotle's fundamental law of logic. As each knight-errant comes into sight of the Holy Grail, the logical contradiction shows up in the mathematical calculations to prove that infinity equals zero; he realizes that it is impossible to claim the prize without sacrificing the entire edifice of Western reason. The social and economic penalties for threatening the sanctity of Western logic are so severe that each authorized aspirant for holiness decides that discretion is the better part of valour; he goes through the motions of justifying his research grant, and lets it go at that—with everyone's blessing.

This contradiction becomes soluble when the two brains unite and human consciousness is transported into a higher dimension. Innumerable people have succeeded at this. *You* will, too, before you finish this book. The qualifications demanded for this insight are a solid understanding of elementary mathematics and geometrical logic to the level required for high school entrance, a faculty for visualizing structure in space, an ability to translate

spatial images into verbal images, and vice versa, and a willingness to blow your mind.[4]

In public school and popular literature, science is presented as infallible Holy Scripture, and most people look at scientific literature with the same emotional appeal for certainty that they take to church, if they admit to religious longings at all. If you are reading this book to learn a set of facts that you can recite as the latest TRUTH, you will be frustrated and disappointed. The theory presented in this book is an object lesson revealing how original scientific insights are developed into published theory, and how social, political, and economic pressures determine which theories are authorized for public consumption. It is hoped that this book will do for the American science industry what Ralph Nader tried to do for Detroit. This is the kind of information you need to get the best science for your dollar. (And if you don't insist that Princeton and Cambridge produce the science you need to keep up with the world, it won't be long before the world market is taken over by Moscow and Tokyo, just like Osaka put a stubbornly reactionary Detroit out of business. When this happens, it's *your* job that becomes technologically obsolete, leaving you with nowhere to go.)

The holy science of the Aquarian Age is not known to the public because the mass media and the universities are in business to supply the public with conventional wisdom. Professional journals cannot publish revolutionary research, no matter how badly their editors want to, because the journals' reputations are established on their devotion to cultural concepts. There is an eager "10% market" for unauthorized speculation, but publication in the pulps is the kiss of death to professional researchers. So until a profitable demand develops for unconventional theories, radically revolutionary science never reaches the public.

Although the pressures of the free market system we live under are not fair and the known truths are tragically distorted, we still have the best and freest system for disseminating information in the world. (All the practicable alternatives are disastrous in the long run.) Science is, and always will be, a social enterprise subject to all the mandates of its society. The fruits of our system (at least until 1950) prove that our system is supreme despite its faults.[5] This book is not intended to knock down the system, but to try to improve it.

[4]If you managed to graduate from high school without understanding enough mathematics to enter, you may be able to bluff your way through this book, too. Many math teachers don't understand what their language means.

[5]Since World War II, so much science has gone secret that no one knows where the ball is in the game. The condition of liberal funding for research is that the findings remain private property. Scientists deplore the secrecy imposed on them, but most scientists agree that secret discoveries are better than no discoveries at all—especially if they are getting paid to make them.

Except for martyrs driven to be recognized as the originator of unpopular heresies, revolutionary ideas have always been developed in private and circulated as personal correspondencè. Today, Xerox and offset printing facilitate the reproduction of personal correspondence as newsletters. Thousands of Free World scientists, in dozens of groups all around the world, constituting an Invisible College, are working through the mails. They are supported by hundreds of thousands of amateur laymen, much as writers in the Soviet Union have to pass unpopular poetry from one person to another because their mass media won't touch "counter-revolutionary art."

The theory described in this book is typical of the work being published in the modern Invisible College. The facts you are about to read have developed over years of repeated printings in newsletters and subscription periodicals circulating from M.I.T. to China, until this Unified Field Theory was presented to an international symposium of physicists and engineers at the University of Toronto in 1981.

While reading, you must bear in mind that *every* scientific theory is a temporary truth, not an eternally immutable statement. The version you read here is not exactly the same as the version presented at Toronto because fresh evidence, acute criticisms, and unexpected insights have spotted earlier errors, clarified earlier expressions, and found sounder proofs.

Every theory has its errors, and the most respectable theories are rife with glaring contradictions. Theories are tools, constructed for practical purposes for as long as they work, and discarded when a more efficient theory is introduced. Seekers for *truth* are thrown into consternation by this fundamental fact of scientific life, but this is the way it is. Newton supplanted Ptolemy because artillery had developed enough gunpowder to lob missiles beyond the horizon, and the military-industrial establishment was desperate to figure out a way for hitting unseen targets. It was not because of errors that Newton was supplanted by Einstein; Einstein simply provided a bigger bang for our bucks. And while the Pentagon is armoring America with a nuclear Maginot Line, the Kremlin is developing new holistic physics to give them more kaboom per kopek. This is the way science moves. It is a precious criticism that seeks errors without finding practical improvements.

In my previous book, *How To Build A Flying Saucer,* I showed that skilled tradesmen have always known ways to solve a number of popular engineering mysteries, but social pressures keep tradesmen muzzled. My particular trade is a branch of the graphic arts industry, so my jobs require a commercial competence in a number of mechanical skills and a practical

comprehension of a sophisticated ancillary technology. In this book, I use the traditional wisdom of the industrial arts to resolve the refractory mysteries of established science.

In answer to academic critics who question my qualifications for drawing the sword of the Unified Field Theory from the stone of the logical contradiction, I propose that scientists and artisans are both consummately skilled mechanics, masters of tools and materials in their individual specialties. In fact, modern science would be impossible without skilled mechanics to construct the experimental machinery.

The main difference between the scientist and the artist lies not in their specialized training, but in their respective languages. Neither brain hemisphere recognizes the language of the other as being truthful statements about the same reality. But both science and art actually use the same essential language to express the same truths about the same reality. The difference is merely a matter of local dialect and notation.

The language of science is number. Music is a language of pure number. All temporal phenomena can be described accurately by a set of numbers analogous to musical statement. All digital data can be translated into perfectly equivalent geometric and/or pictorial statements. Arithmetic, geometry, and algebra correlate with music, graphics, and architecture. Any statement uttered in any one of these vocational dialects can be translated to every other vocational dialect with absolute fidelity.[6]

Once the language of art is understood to be perfect mathematics, it can be seen that the true qualification for research in both pure science and pure art is competence in semantics. A competent artist is just as qualified to do scientific research as a competent scientist is to produce works of art. In fact, it was artists who discovered the laws of optics and geometrical perspective. Samuel Morse was a portrait painter by trade, not an engineer. Conversely, the most exquisitely beautiful forms are not the designs of artists, but of engineers. Da Vinci regarded himself as an engineer, not an artist, and Michelangelo had to be a consummate engineer before he could be a consummate architect.

Twenty years ago, while failing to learn judo quickly enough to defend myself from my own instructors, I realized that the ritual *katas* composed by

[6]Communication between the human race and other creatures will have to be mediated by mathematics if the aliens are technologically civilized, and by music if they are not. We already communicate with cetaceans by music, but mathematics is more likely to transpire during "Close Encounters of The Third Kind."

the mystic masters of the Oriental martial arts are not mnemonic dances, as generally believed, but are actually mathematical equations expressed in a lively notation, analogous to algebraic statements.[7]

By the common coincidence of scientific discovery, Tom Bearden was making the very same observations of the art of *aikido* on the other side of America. As a consequence, we each formulated almost identical Unified Field Theories. Apparently, the athletic arts are as good a way to unify the two hemispheres of the brain as any other discipline.[8] So this book will begin by recounting the original observations, deductions, facts, and insights. The statement of abstract deductions leading to the key equations that unify mind with matter constitutes the core of this book. The application of the general theory to explain mental reality in terms of material reality will constitute another volume.

The final and incontrovertible proof of any physical theory is its application to technology. Only when an inspiration becomes practicable do the two sides of human nature become one. Psychotronic engineering, however, is beyond the scope of this book, and beyond the competence of this author. Serious students of psychotronics cannot find a better book to follow this one than Tom Bearden's *Excalibur Briefing,* available through the American Association of Meta-Science, P.O. Box 1182, Huntsville, Alabama 35807.

Like my earlier book, *How To Build A Flying Saucer,* this book is an object lesson showing that the deepest mysteries of life are open to everyone, regardless of formal education, laboratory equipment, or research grants. Regardless of your position in life, you are as competent to discover the essential truths of science and religion as are the highest authorities. Every cook is a chemist, every athlete is a yogi, every photographer a physicist, every carpenter an engineer, every farmer a meteor-tr-ge-ec-bi-ologist and a hell of a good businessman. Every businessman is a practical mathematician, as are tradesmen and artists. If they were not, the specialized professions would be of no value to society. Of course, each person will express his

[7]The Ancient Orient had no mathematical langauge like modern science, so how else could the Masters publish their knowledge? Besides, tyrannical regimes burn books from time to time, exterminating the accumulated knowledge of entire eras. Sometimes the authors were exterminated, too.

[8]Some seekers take up esoteric exercises like *hatha yoga* to promote unity within the self. This is the wrong way to go for an American; you will find greater yoga in hockey and other Western games for the Western mind. Arcane bullshit doesn't do anything for a normal, socially integrated person.

understanding in his own way: the scientist expresses his concepts in algebra; the Oriental Master in drama; and a working man like me in social satire. Each philosopher is heard by those in his scene who understand his language. A scholarly format, therefore, would be not only as insincere as a Zen Bible, but would also alienate the people who will find it relevant to their experience. Besides, highly competent scholars are already publishing books on Post-Relativity physics for readers who appreciate fine scholarship.

If you are a layperson, this book will enable you to understand scholarly versions of quantum physics, Relativity, and Post-Relativity, whether written in the original Greek or translated into the Vulgate. If you have a professional competence in one of the sciences, this book will give you an idea of what equally competent researchers are doing beyond the pale. If you are an athlete, this book will revolutionize your understanding of sport. If you have a religious faith, this book will give you support from the most advanced science. If you are an artist, this book will make you realize you are a scientific researcher of no less importance than Cavendish, Curie, and Einstein. If you are a hi-PSI freak, this book will give you proof that your favorite hallucinations are as real as the equally elusive quarks—and more reliable than the weather forecast. If you are professionally active in the high-tech industrial arts like acoustics, film craft, photo-mechanical-electronic reproduction of information, marine-aeronautical or structural architecture, electric music, and so forth, you won't learn a damn thing from this book you don't know better already. I got it all from you people.

1

THE DANCE OF LIFE

How you can become a living laser

A generation of wars in the Far East has brought to the American people an exotic sport and entertainment—karate, kung fu, judo, aikido, tai chi chuan, and other esoteric, Zen-inspired martial arts. Most people do not believe that the stupendous gymnastic feats of masters of such as the late Bruce Lee can be performed without trick photography. And, in fact, advertised displays of the martial arts staged to impress uninformed spectators are usually well rehearsed, choreographed, and practiced to music.

Nevertheless, perhaps once in a lifetime or once in a century, an elfin old man will appear on the scene claiming to have discovered, after years of solitary meditations, arcane studies, and ascetic disciplines, a transcendental spiritual power. His life nearly over, he feels properly prepared to impart his rare knowledge to the rest of us. In keeping with the tacit axiom of Zen disciples—might is right—he proves he has muscle where his transcendence is by taking on any number of challengers in hand-to-hand combat, one at a time or *en masse*. With but a flick of his fey fingers, he flings 200-pound attackers great distances through the air—no sweat. How 'bout that, Maharishi?

After picking themselves up, the challengers agree that they did not feel the touch of the Master. Yet, they were propelled by an irresistible force that raised them bodily and swept them away. Invariably, they attest that the Master darted so swiftly that they could not see the power drive. This is in

direct contradiction to the eyewitnesses, who say the old man waltzed so leisurely that he seemed to be in a gleeful trance. While many people who were not witnesses and who hear the tale after the event will refuse to believe it, anyone who has the fortune to meet such a Master is convinced that the little wizard has something going for him that the rest of us mortals are missing out on. But what is it?

I raced bicycles when I was young, reaching the top level of international amateur competition before being sidelined by paralytic polio. After recovering sufficiently, I was attracted by the advertising of "The Gentle Art." If Bruce Tegner could teach self-defense to cripples in wheelchairs, why not me? By the time I learned how to bow, and to whom, it became apparent that the prevailing instruction, explaining the techniques of judo as timely applications of balance and leverage, were quite inadequate to account for the dynamic power actually generated by the Black Belts. Not even Jigoro Kano, the Master who founded the sport, ever properly explained the secret of his overwhelming prowess; this is why he was singularly exceptional even at the highest rankings of his own school.

This insight was not mine alone; most beginners learn sooner than I did that instruction does not produce the results promised. So after a few weeks, they quit in discouragement—keeping their still-stiff uniforms to wear in the bedroom and impress beautiful, young strangers who go hump in the night. Those who persevered on the mat, it seemed to me, were oblivious to the contradiction between words and action. They assume that the fault is in themselves for failing to understand. Like the faithful old horse in Orwell's *Animal Farm,* they persist blindly until they absorb a satisfying competence from prolonged body contact, much as one can learn to dance with a willing partner without analyzing the steps.

Continued observation revealed to me that the difference between the trained athlete and the average person is not superior muscles, speedy reflexes, or special technique. Power is produced by coordination of movement. The champion develops overwhelming strength, tireless endurance, and effortless technique because he directs all his body movements into one drive, instead of dissipating his energies in random motions. You can see this clearly in comparative photographs of beginners and experts. The beginners' arms and legs jerk all over the place or are held rigidly, while the expert uncoils every limb of his body like a spring and swings like a pendulum.

Once this cardinal principle of athletic mastery was clearly articulated with the techniques of the sport, it became possible for inept students to get

some of the results they wanted within a few days.[1] Discouraged students took a renewed interest. Those who had fine coordination to begin with, found that they could actually throw a Black Belt after only a few hours of instruction in techniques that they believed impossible to master without years of study.

Once the first insight had been gained into the secret of generating dynamic power, another difference of a higher order became apparent—the difference between ordinary champions and the legendary mystic Masters. As it happened, during the time of the original discoveries, a seaman who had received some instruction from a Master in the Orient dropped in on the judo class at the local YMCA and demonstrated two throws he had learned. Then and there, we who were present saw for ourselves that the legends of the great mystics were true. He moved without haste, and his touch was so light it could scarcely be felt. At a certain point, he stood solidly balanced. At that instant, a dynamic power swept his partner into the air with such force that no man could resist it. We rose and soared over the mat as if propelled by antigravity. It is very easy to become religious when something like this happens to you—you let your hair grow long, avoid sexual temptation, and go squatting in the wilderness, seeking the Godhead whence this power seems to emanate.

Close analysis, proven by clumsily reproducing the phenomenon, revealed that the Master moves in contradiction to what the eyewitnesses see and what the participants believe they experience. The Master moves neither swiftly nor sluggishly, but at a constant acceleration close to gravity, akin to a controlled state of not-quite free-fall. His movements are not made to exert force upon his partners, but to induce them to follow him. Accelerating like a pendulum over a few strides generates considerable velocity without exertion or sudden lunges. Even when changing direction, the Master always circles with the acceleration of gravity. He controls his velocity not by driving, but by directing his angle of balance, his attitude.

No matter how forcefully or erratically an attacker approaches, there must be some part of his body that is moving with the same velocity as the Master. In other words, between the two men, there are points where there is no relative motion. The Master, therefore, can reach out and make an

[1]These results were able to be reproduced by other instructors with other students, providing they understood the basic principles. This is a critical test. If one instructor produces outstandingly successful students and delivers the same lessons as all the other instructors, you have reason to suspect he is *doing* something different without being aware of it. But when all instructors produce similar improvements after changing nothing but their lessons, the difference can be attributed to improved semantics. Suzuki's method of teaching music would be of no value to society at large if Suzuki were the only person who could teach by his method.

attachment to the attacker without exerting any force of impact, and the timing does not demand the split-second precision that limits competence in conventional technique to the young and quick. The momentum of the Master's whole body is then transferred through the hold, forcing the attacker off balance.

The ability to control the point of balance is the mental power by which contests are won. Once the attacker loses the point of balance, momentum overwhelms his strength, and he is forced to follow whither the Master leadeth until the whip is snapped.

The movements *appear* leisurely because acceleration is constant and there is little velocity difference between the players. The challengers do not see the drive that throws them, not because it is too swift for the eye to detect, but because it never happened. The power drive is hallucinated so that preconceptions about the way things happen are maintained, and a mental block develops to prevent further examination of the evidence.

The mental block is produced not only in the challengers' mind after defeat, but also in the spectators' so that a mass delusion of mysterious transcendental power is created, while all efforts to explain it are subconsciously misdirected. When the real mechanics are revealed, they are denied vehemently by all authorities, because fundamental concepts informing us about the way the universe is supposed to unfold must never be challenged; a charge of insanity is raised against anyone who dares to question authorized truths.

Even the very Masters are a part of this conspiracy to deny evidence because the Master's ability to perform his technique in combat depends upon his confidence that they will work. Unless a Master understands the physics, he believes he has a divine spirit on his side. Naturally, Masters who believe in the divine spirit don't want to have their beliefs disturbed. It is less disturbing to accept a dichotomy between the real and the spiritual and to let the spiritual phenomena go unexplained.

A person who studies this phenomenon without capitulating to awe will find that there is nothing supernatural about the spiritual power generated by the Master. The peculiar dance with which the Master meets his opponents serves to harmonize the natural cadence of their bodies until all the little swings can be concentrated into one big swing around the point of balance, very much like the game "crack-the-whip." This technique is clearly apparent in a film on Morihei Uyeshiba, the founder of aikido, that has been circulating around American universities. Dancers and gymnasts utilize the same

principle to achieve lifts and vaults that would otherwise be impossible to perform with any muscle strength. Bullfighters use eye contact (the bull's eyes, not the toreador's) to direct the animal past the man instead of into him; the passes follow the same curves of power in space as the attacks and defenses in the martial arts.

There is a point of balance to control these swings, and when the Master pre-empts that point, his opponents literally cannot find a foot to stand on. Since they are already falling without quite knowing what is happening, all the Master has to do is let go and let the divine spirit of accumulated momentum do the rest. The spectacular flips imparted to those who are about to fly are only a garnish; once the feet are off the ground, it merely takes a snap of the fingers to rotate the body and dazzle the spectators with bravura tumbles.

Once I saw what was really going on behind this subtle, sleight-of-hand artistry, there seemed to be no reason to consign one's self to the years of self-mortification that limit proficiency to members of the First Estate. I began to show some *budoka* of how it worked and set about to write a book describing a radical theory of training that can be applied to all athletics.[2] But as I was trying to practice what I was learning, it became evident that there is more to generating momentum than the whammy that passeth all understanding. In throwing out all the mystical discipline as empty packaging, I was too hasty.

In order to concentrate all momentum into a single direction, at a single point in space, at a certain instant in time, all body muscles must be coordinated into a single swing. The Master understands, quite correctly, that mental training is the basis for this kind of body control, and mental discipline develops this power better than blind grunt and sweat. The development of a fully organized and conscious mind, in fact, is the secret of a successful power in *every* human endeavor. Physical training at combat is merely the crudest system to exercise the minds of people not sufficiently conscious to get their act together by less strenuous discipline. Sport is meditation for sweatheads.

Ah, so! Coordination is the secret of spiritual power. How does one develop coordination?

Obviously, a muscle group can make coherently organized movement only when all its component cells contract in a smooth wave motion. Muscle cells are stimulated to contract by electrical impulses from the brain. If an

[2]If it ever comes out on the market, you will recognize it by a title something like, *The Secret of Developing Spiritual Power in the Oriental Martial Arts of Karate, Judo, Aikido, Etc.* I want to call it *Fierce Love,* but the book sellers will stick such a suggestive title on the same shelf with Harlequin Romances.

athlete is to develop precision and power with his body, the brain must learn to produce coherent waves of electricity. So the proper question is, "How does the brain learn to generate coherent waves of electricity?" How can a coach and trainer get into an athlete's brain to adjust the distributor? Unless brain waves can be tuned at will, there is no practical value to this discovery; training must remain what it always has been—nothing more than a system for sorting out the jocks, naturally tuned into "the transcendent spirit," from the rest of us who are rendered weak by internal static.

But we know that the electrical impulses generated in an athlete's nervous system are tuned to the game he is playing. Therefore, there must be a natural time-keeper in the game to provide feedback to a servomechanism. What could it be?

In all athletics, timing is recognized as cardinal to success. As soon as you see a contestant lose his timing, you know he will lose his game. One strategy of gamesmanship is putting a warp into a rival's time stream. Without any instruction in the process of timing, athletes concentrate on technical form and muscular strength. This negligence is abetted by the cultural belief that training must be strenuous to do any good. Strenuous practice builds muscle and stamina; a contestant with strength, endurance, and some technical skill will always overcome the competition that has less muscle, poor technique, and no timing at all. As long as trophies can be won without special training in timing, there is no need to discover what timing is all about, and the secret remains occulted in the mystical, right-brain language of the Masters. With proper timing, technique is automatically perfect without any other instruction, no effort is exerted, so no muscular strength or cardiac endurance is necessary.

Laboratory tests prove that gymnasts and dancers have the most powerful bodies of all athletes. Dancers do not build muscle or do ten-mile training runs, but a *karateka* (a disciple of karate) who cracks bricks with his chop would be hard-pressed to keep up with a petite ballerina performing a long solo on point. In none of the other arts is any instruction given to the neurophysics of timing, so it is only gymnasts and dancers who know exactly how long and at what speed each movement must be made to swing with the game. Most trainers merely repeat, "Watch your timing," while students quit in frustration, not knowing how to tell the time.

Athletes begin to practice more smoothly when they reach a certain stage of fatigue. This commonplace observation has led many trainers to exhaust their protégés deliberately, as soon as possible, in order to bring about this state of efficiency. If an athlete practices long enough in this state of

relaxed exhaustion, the smoother movements become habitual. What happens is that muscular fatigue reduces an athlete's drive to exert himself. As muscular tension relaxes, the body's movements slow down until they coincide with the universal acceleration of gravity. At this point, limbs and torso swing freely without any more muscular exertion than the minimum required to maintain dynamic balance. If the fatigued body tends to move more slowly than the gravitational acceleration, more effort must be exerted to resist gravity; one must work harder to go slower.

The natural wisdom of life is to reduce exertion, especially when one is tired and not to work harder. Fatigue is the natural stimulator of this wisdom. Therefore, the brain learns to accelerate or retard the tempo of its electrical signals in order to maintain muscular exertion at the lowest feasible level in the circumstances. This tempo is the resonant frequency of the body in the gravitational field. By timing the beating of their wings to the resonant frequency of their mass, birds and insects are able to fly hundreds of miles without stopping.

The timekeeper is *gravity.*

Gravity is an obvious concept to us today; we forget that the concept did not exist until the modern era. Prior to Newton, savants believed that material bodies fell down simply because it was their nature to do so. The introduction of the concept of gravity is so revolutionary that this one idea, alone, was sufficient to exterminate medieval civilization and inaugurate scientific determinism. Such is the power of a fundamental concept of reality when its time has come.

Each stage of proficiency in an art is established by the development of a certain degree of physical coordination. Coordination with gravity means that mental power expands from the defined limits of the material body to include the surrounding space; this is the true meaning of the Oriental injunction to regard attackers as extensions of ourselves. Just as there are many degrees of coordination in the movements of the limbs with each degree yielding a commensurate amount of bodily power, there are many degrees of coordination between one's body and the surrounding space, each level also yielding a commensurate amount of spiritual power on top of muscular power. The secret of coordinating the arms with the legs is called "timing." Likewise, the secret of coordinating one's body with the surrounding space, so that you "go with the flow," is also a matter of timing.

Jigoro Kano established the Kodokan school of judo in Tokyo when he discovered the secret of timing with the surrounding space through the principle of dynamic balance. A person on one foot can be pushed over in any

direction. It is impossible for an attacker to take a single step against you unless he puts all his weight on one foot and removes the other from the ground. By blocking the raised foot as soon as it begins to move toward the dynamic point of balance, Jigoro Kano was able to throw everyone close enough for him to reach. By simply learning how to trip his opponents, Jigoro Kano became invincible against all challengers in the most competitive game in town.

Paradoxically, Jigoro Kano mastered the first principle of timing without being any more aware of what he was doing than is Wayne Gretzky, a hockey star, who can't explain exactly how he is always in the right place at the right time. Therefore, he was unable to teach anyone else the secret of his "spiritual power," except through body contact with his favorite disciples. His public lectures are a red herring, describing merely the principles of leverage to break standing balance. Yet the power of the desire to believe in the absence of understanding is such that his lectures are recited to this day, fifty years after his death, even though the instruction cannot possibly defend you against anyone bigger or stronger. If you are bigger and stronger than your attacker, you don't need judo.

The first Master of the martial arts who blew his mind to a higher dimension of consciousness was Morihei Uyeshiba, who went public a generation after Kano. Being another small man, Uyeshiba was quick to learn the folly of resisting the power of bigger opponents. While running away from attackers, Uyeshiba became increasingly adept at darting backwards as soon as he saw a hand raised against him. This stroke of genius became the realization that no one could touch him as long as he moved as quickly as his attackers and in the same direction. In this manner, the aspiring Master discovered the state of stillness that appears when there is no movement between moving bodies. The stillness gave the little guy all the time he needed to get a firm hold on his opponent's wrist—the weakest part of the opponent's body that Uyeshiba can grip with all the strength of both his hands. The wrist bone is connected to the arm bone and the arm bone is a long lever that the rest of the opponent's body cannot resist, no matter how big and strong he may be.

One day, when perfect muscular coordination had created a condition of absolute stillness within his own body, by the generation of a coherent wave of neuro-electricity, Uyeshiba was surprised to trap the *"Wild Pendulum"* everyone is stalking.[3] His mind blew with an experience of Enlightenment.

[3]*Stalking the Wild Pendulum* by Itzhak Bentov (Bantam Books) is a book on the new physics in the same vein as this one.

Convinced that he had plugged into the Godhead, the Master founded aikido as a spiritual discipline rather than a combat sport. Because the purpose of aikido is to stalk the wild pendulum instead of licensing mayhem, aikido is regarded as the most mysterious and impractical of all the violent arts, except by the disciples of the more mysterious and more meditative tai chi chuan.

It isn't necessary to study an oriental combat sport to experience a state of dynamic stillness. All superathletes report this state when they learn to move at the same velocity as everyone else in play, and they all report the sensation of slowed-down time, enabling them to perform considerable technique before resistance is felt. As time slows down, all the movements in the surrounding space are sensed as movements of one's own mind/body, so that a strange sensation of knowing what is going to happen is experienced. This is why all Masters know what opponents are going to do before the opponents know themselves and this is why superstars in team sport are always at the right place at the right time to take control of the action. Jackie Stewart gave a detailed account of trapping the wild pendulum in a *Playboy* interview.

You can find the still point while driving in the center lane of a crowded freeway. When you enter "the still point of the dance," there is a stillness stiller than John Lily felt floating in his tank of amniotic water. The stillness is the very ecstacy of the dance of life.

If absolute stillness is touched when competitive strain overwhelms normal inhibitions, it is common for winners to break into tears of ecstacy, saying, "The Man Upstairs gave me a boost." The same tears of ecstacy overflow in people who are relieved of their afflictions by divine healing. However you trap the wild pendulum at its still point, the experience of Enlightenment is so awesome that everyone who realizes it can only believe a communication with a Divine Intelligence has transpired. In fact, this is exactly what has happened. But what conventional wisdom calls a God Consciousness is really an expansion of the mind into hyperspace, beyond space and time, as defined by the prevailing concepts of reality.

Until the last decade, psychiatrists were convinced that Enlightenment is a symptom of serious mental disturbance. Hoffer and Osmond's diagnosis of schizophrenia was particularly vehement against the dangers of highway hypnosis. But as long as patients confined their Enlightenment to church services, they were not regarded as dangerous to themselves or to others. In recent years, however, some psychologists were radical enough to ask *normal* people about Enlightenment, and they reported their findings in *Psychology Today.* Enlightenment is not a rare phenomenon confined to the lunatic fringe;

it occurs frequently in normal, happy, and productive people who are not so foolish as to tell a psychiatrist about it. And the more Enlightenment people experience, the happier, the more productive, and the better adjusted they become. As the Maharishi has been telling us for most of our lives, Enlightenment is the *normal* state of a whole human being.

Successive graduates of Psych 201 have called the divine revelation "the religious experience," "the peak experience," and "the flow."[4] The next graduating class will introduce another term for the experience so that confusion will multiply without anyone becoming wiser. No one is supposed to become wiser because the cultural imperative is that the left-brain shall not know what the right-brain is doing. The yogi know Enlightenment as *samadhi*—the psychic orgasm resulting from the loving union of the two cerebral hemispheres. Outside of this state of psychic matrimony, a person is not less than human, but certainly less than whole, and far from divine.

Doctor Barbara Brown, a pioneer of brain wave research, found that sensations of oceanic ecstacy, creative insight, PSI experiences, and a thrill of spiritual power combined with preternatural clarity of mind occurred with significant frequency when her subjects' nervous systems were generating strong electrical pulses at 7½ cycles per second. This pattern of brain waves is associated with a state of mind called theta consciousness. Brown also discovered that athletes generate powerful electrical pulses at the frequency of 7½ cycles per second when they are performing with superb efficiency.[5] Since we have deduced that the athletic brain is tuned to generate electrical pulses by the resonant frequency of the body swinging freely in the gravitational field, the 7½hz wave must be an overtone of the resonance uniting the mass of the body with the mass of the Earth. Theta consciousness, therefore, is a state of organic energy generated when a person is in tune with the cosmic electricity of the planet. Doctor Brown's findings establish a hard physical basis for the mystical descriptions of spiritual power given by geniuses at all fringes of lunacy.

Brown reasoned that if athletic training develops theta consciousness, then theta consciousness should enhance the results of athletic training. Her hypothesis worked when tested. Athletes who take biofeedback training to develop theta consciousness improve their performance, regardless of their

[4]Dropouts coin street synonyms—"swell," "groovy," "swing," "right on," "neato,"—to express the still point of the wild pendulum.

[5]David John Graham proved what theta consciousness means to the price of Gold from Acapulco by using an electrical field to induce ecstacy in eager subjects. He is putting his electronic stone on the head market for trippers who prefer to fly clean.

workouts. The mystics have known this all along. While sweatheads grunt for six hours every day, training for the championships, Zen monks merely meditate on the gravity of the situation to become invincible Masters.

We have already established the fact that a person must learn to coordinate all the muscles of his body into a single, smooth motion before he can produce the state of absolute stillness. When all the muscles of the body contract as a perfect wave, the effect is the equivalent of the contraction of a single muscle cell possessing the dimensions of the human body. Some engineers calculated that a man-sized muscle could theoretically generate tensile force capable of lifting half a ton. In fact, circus strongmen *do* lift half a ton. From time to time we read reports in the press of frail women lifting an automobile to free a trapped child, and men tearing steel doors off hinges to release drivers from burning cabs—evidence of the power of perfect muscle control in alternative states of consciousness.

To appreciate the structural problem involved in subjecting the human body to stresses on a ton scale, take a flexible wooden yardstick and bend it into a semicircle. As long as the curve is assumed slowly and evenly, the wood will contain the tension. But if a nick or other fault appears along the curve, the rest of the yardstick will straighten out, concentrating the tension and multiplying it by leverage at the fault, until it breaks. Similarly, the body can withstand stresses as efficiently as an ant as long as *every* muscle, *every* bone, and *every* joint carries the tension evenly. Otherwise, tendons will pull, sheaths will rupture, and bones will crack.

In order that muscles contract in unison to generate an ideal wave motion, it is necessary that every molecule in the body involved with the relevant electrical discharges move coherently, too. When molecules move coherently, all random motion between them is eliminated. In other words, theta consciousness is what you feel when absolute stillness pervades the interior of your body.

In high school, you were taught that temperature is a gross measurement of random molecular motion. When temperature is reduced to the Absolute Zero of $-273°$ on the Kelvin Scale, all random molecular motion ceases. But before Absolute Zero is reached, electrons in the material seem to crystallize suddenly; at this "freezing point," the material loses all its resistance to the flow of electricity and electromagnetic forces. This phenomenon is called "superconductivity." Absolute stillness and Absolute Zero are identical states. Therefore, in a profound state of Enlightenment the Master's body can be expected to manifest superconductivity to some peculiar degree. The sensation of cosmic energy flowing through one's body in a state of stillness is

what superconductivity feels like. Enlightenment, creative genius, and PSI experiences are the results of superconductivity. Who would have thought that Olympic champions and religious prophets develop from a common source in particle physics?

John Bardeen, Leon Cooper, and John Schrieffer shared a Nobel Prize for equations proving that the elimination of all random molecular motion in a material results in the molecules cohering as if they were a single, gigantic molecule. At the scale of a single molecule, quantum effects become evident; superconductivity is a manifestation of quantum mechanics magnified by integrated cohesion to the human scale of observation. In other words, the phenomena we regard as peculiarly vital are quantum effects. Life is a manifestation of quantum mechanics on the normal scale. This is why the same mathematics are used to describe human behavior in actuarial statistics and also subatomic events. This is why people and particles are both unpredictable.

If a person were to attain a state of absolute inner stillness so that all random molecular motion in his body ceased, we would expect the body temperature to drop to Absolute Zero—right? Wrong. The critical condition is not "motion," but "random." In the state of superconductivity, molecular motion still exists; it is the *randomness* of motion that ceases. When random molecular motion ceases in a human body, the kinetic energy is organized into coherent molecular resonance. Resonance is superconductivity at normal temperatures.[6] In the state of absolute stillness, the athlete's body resonates at a fundamental frequency governed by gravity, and the athlete's molecules resonate at a harmonic undertone governed by the body's dimensions. Gross molecular motion continues to register on a thermometer just as it does in liquid helium before the Lambda Point of electronic "crystallization" above Absolute Zero. It is exciting to read research finding increasingly higher Lambda Points in complex molecules. When they find organic molecules with a Lambda Point at 98.6°F (superconductivity at body temperature), modern scientists will finally realize what mystics have always known.

When heated, superconductive material does not show any increase in temperature. The random molecular motion of applied heat is transformed instantly, on contact, into coherent molecular motion and is radiated throughout the material. Heating a superconductive material is like trying to

[6]Technical arguments objecting to identifying superconductivity with resonance are answered by the phenomenon of scale, explained in a later chapter.

solder copper plate. When this phenomenon was discovered in a Dewar flask, the resonance of the liquid helium was at an audible frequency, so the lab workers called it "second sound."

Resistance to temperature change is a proof of superconductivity. If the human body is capable of assuming a superconductivity by absolute integration of its molecules, it should then be possible for a person to survive fire—with no sweat. According to photographs brought back by travellers, religious enthusiasts really do walk over beds of fiery coals so hot that the clothing of onlookers burst into flames—you can bet your mantra that they are resonating like crazy.[7] What do you suppose *second sound* sounds like when it is produced by a superconductive human body? The sound of OM, what else? You can get an idea of what the sound of OM feels like by putting the movie sound track of *2001: A Space Odyssey* on your record player and turning the volume up all the way for the opening organ notes.

Perfect coordination of the human body is the effect of perfectly coordinated electrical discharges in the nervous system. Electricity is a property of atomic structure. Therefore, an ideal athlete must train a significant proportion of all the atoms in his body to discharge their electrons coherently. Atomic integration extends the limits of conscious control of mind over matter considerably beyond the respectable fringes of science, but biofeedback research has already proven that a person can learn to contract a single muscle cell at will. The corollary is ineluctable; a person can control the electrons of specific atoms, individually or coherently *en masse*. In other words, the human mind can focus and control events on the quantum scale with a practical degree of precision.

If all the atoms in a man were coordinated to function with the coherence of a single atom, what a big atom it would be! The living atom would concentrate sufficient voltage to start the heart of a dead person on contact, as do the electrical stimulators used during cardiac surgery. To the extent that illness is correlative with a disturbance in a person's bioelectrical balance, the touch of Mr. Atom would restore a healthy polarity, allowing the body's natural defenses to eliminate the chemical and germ agents of disease. A "magnetic" personality is literally electromagnetic; charisma is the energy of the electromagnetic field surrounding an integrated person. The voltage can be discharged by contact with a properly tuned person. Does this remind you

[7]And then there is the story of Shadrak, Meshak, and the other guy in the fiery furnace.

of anyone you have read about?[8] By reversing the phase of his atomic particles, the All Together Guy would be able to rise from the ground—even walk on water. By holding His hand, induced polarity would enable you to walk the waves beside Him.

Coherent vibrations are what the laser is all about. A living laser would glow with a peculiarly sparkling effulgence, rather difficult to gaze upon. Now, if you refer to your Bible, you will find accounts of holy men who manifested all the properties modern physicists calculate to be proper to the atom. This coincidence staggers belief. You must understand that the laser is presumed to be the most sophisticated invention ever conceived; the one thing man has created new under the Sun. There is no way for a laser to have existed, naturally or otherwise, before the first one was constructed in 1960. Without the most advanced mathematics, it is believed impossible for any human imagination to conceive the vaguest description of what laser light must look like. Yet we have accurate and detailed testimony of this utterly unique phenomenon written down from the witness of more or less ignorant shepherds and courtiers living on the hills of the Levant thousands of years ago. To tell it like it is, they must have seen it like it was.

The human body is a living laser! Life is a natural evolution of laser mechanics. All the phenomena peculiar to life, including perception, emotion, and intelligence, can be correlated with patterns of vibrations. The mystic disciplines for spiritual development are techniques for turning the atoms of the body for increased efficiency of laser action. The difference between the normal taxpayer and the superhuman demigod is determined by the organic integrity of the biological laser.

Coherent resonance is the definitive property of crystal. The ability of crystal to amplify sound and electromagnetic energies by tuned resonance is an analogue of the laser on a lower scale. The human body, and every other organism, is *living crystal.*

At the time when this insight was realized more than ten years ago, the concept of a colloidal crystal was ridiculous. By definition, crystal had to be solid. Now you can buy liquid crystal toys. Long flowing hair is an example of fluid crystal. Would you believe a crystal gas? That is what a helium laser is.

[8]Jesus' mysterious ability to sense when he was touched by a single person while pressed by a milling crowd is explained by the physics of electrical discharges tuned by resonance. If a vibrating material is touched by another tuned to the same frequency, the other will function as a conductor to draw vibrations from the first: if a vibrating material is touched by another tuned to a discordant frequency, the other will function as a resistor. This is how Jesus knew when he was touched by a person in a state of grace.

A crystal grows by disintegrating the molecules of its contiguous environment by electromagnetic interference and then by recomposing those molecules into its own organic structure, just as living creatures do. A crystal's electrical potential is highest at its poles, and its poles are located at the extreme acute projections. Therefore, crystals grow most rapidly at their extremities, like bones. The extremities of our bodies are nails, eyes, and hair. These tissues are electromagnetically sensitive organs, embryologically related to nerves. Hair and eyes are both polar antennae. The electromagnetic field of crystal is concentrated within the acute enclosed angles. No angle is more acutely enclosed than the alimentary canal, and this is where living crystals transform the environment into themselves.

Not long ago, chemists believed that molecules were two-dimensional structures because their formulae were conventionally described on the flat surface of paper. The first chemist who suggested that methane had the form of a tetrahedron was laughed out of his lab. Now, three-dimensional molecules are taken for granted. There would be no double helix without stereochemistry. If a carbon atom can be surrounded by hydrogen atoms to form methane, why cannot one molecule be encapsulated by others? In fact, this is what happens when a number of ions unite to form a heavy molecule. A normal crystal contains molecules electromagnetically bound to surrounding molecules. Well then, what if the interior molecules are not bound to the surrounding molecules, but the surrounding molecules are bound to each other? This happens, too. It is called "chelation." If you extend the principle of chelation, you produce a two-phase crystal in which each phase is independent of each other, yet neither being able to exist without the other. What do you think of dynamic molecules—molecules that have no fixed form? A contradiction? Not at all—ever see elastic rubber? Muscle molecules have no fixed form, but depend on the ambient field. Now, if you multiply the phases of chelated crystal and include dynamically unstable molecules and fluid phases, you eventually produce a megamolecule with the compound-complex conformation of a human body. As a single molecule, the human body must be capable of variable electrical resistances, to the point of superconductivity, tuned by transformation of its internal, amorphous structure. As a superconducting molecule, the human body is capable of functioning as a laser. Although each of the statements in this paragraph will be dismissed as preposterous by conventional wisdom, each is proven true, and the line of reason is solid when examined.

Crystals bud when flaws develop along their planes of growth. A perfect crystal does not bud. Therefore, a perfect living crystal would not be able to

reproduce itself by sexual or asexual division, although it could regenerate damaged or lost organs. But a perfect living crystal does not have to reproduce itself because unless it lives dangerously, a perfect crystal never disintegrates; it never develops the flaws of decay. According to testimony of people who claim to know, Heaven must be populated by perfect living crystals. How many of us are eager to wear halos if the perfect contraception turns out to be functional obsolescence?

Although a perfect living crystal will neither age nor die, massive damage to an immortal body could be so traumatic to its spiritual integrity that the power to regenerate itself is lost. Eventually, even perfect creatures must be exterminated by mishaps. Therefore, immortals must have some means of procreating while waiting for holy men to be born among mortals, if their cultural identity is to be continuous. Well, besides sexual intercourse and mitosis, there *is* another means of reproduction. It is possible for the electromagnetic field generated by a powerful living crystal to distort the genetic structure of another creature so that the host reproduces replicas of the incubus, instead of reproducing itself—parthenogenesis.

But conventional wisdom assures us that parthenogenesis is a myth. Actually, parthenogenesis is the most common means of reproduction. The virus reproduces by inducing its host to replicate the virus. The virus is immortal. It never grows; like Athena, it is created as complete as it will ever be. And the virus is the one creature that cannot divide to reproduce itself. No wonder the discoverer of the virus called it "living crystal!"

Is it not remarkable that the ancient legends attribute the properties of perfect living crystals to their gods? In those days, no crystal was known as we understand the concept today, so how could the poets have deduced what the correct properties could be?

Now we know why the gods take an interest in survival of mankind, even though, like the virus, they play disinterestedly with the fortunes of individuals and nations. We are their breeding stock. If we die out, so will they. The gods need women more than men need gods.

Crystalline resonance is the physical basis of tuned electromagnetic radiation and absorption. Therefore, the human body must be a radio broadcaster and receiver. *Scientific American* reports research proving that *all* living creatures resonate electromagnetically in response to one another. To everyone understanding cybernetics, the conclusion is obvious. The entire planet must be a single living creature possessing a unified consciousness. We live on a crystal planet.

The concept of a planet being a living, intelligent creature of cosmic dimensions means that all the species of animals on its surface function as vital organs. The appearance of species and their extinction is the biological evolution of this planet. What organic function do you suppose the human animal, created by planetary embryonics, was meant to perform? Philosophers are certain that so noble a creature as man, created in the very image of God, must be the brains of this cosmic personality. Our behavior indicates otherwise. Our oversized and undercontrolled brains were never genetically programmed to be the head of global intelligence.[9] Rather, our divine discontent is peculiarly designed to get us off this planet. Therefore, we are the sex organ of Mother Earth, and her seed. We were created with an erotic passion to disseminate Terrestrial life throughout the Solar System and the Galaxy. We should not be surprised if our seed meets competition from the crystalline spores of other planets seeking a new Sun to orbit around.

Ever since men first gazed at the heavens, we have known that we are destined to impregnate the planets. And now it looks as if Mother Earth is coming into heat. Well, if we are sexy, who wants to be smart? Seeds must be practically immortal. Our destiny to leave the Earth is the source of humanity's search for immortality, and we shall begin to function for the purpose of our creation when our immortality is established.

The realization that biology is a process of the natural evolution of laser mechanics is a revelation of human instinct, not an accident of culture. Our genes are programmed such that we shall understand the laser at a certain stage of spiritual maturity, just as we acquire a certain understanding of sexuality at puberty.

Natural biological evolution is governed by the mathematics of probability. This means that the degree of interatomic integration that can develop in a living organism is determined by the random events of the environment. Because of its microscopic size, every virus is a perfect living crystal, but chance dislocations increase with body size. A perfect human crystal can grow naturally in no more than a few bodies out of billions. The evolutionary function of society and culture is to create an artificial environment in which the altering factor of probability enables perfect human crystals to grow in great numbers. The principles of laser mechanics must be revealed to

[9]The planetary mind is the electrical structure of the upper ionosphere, containing all global intelligence in its patterns. This intelligence is transmitted to mankind by "inspiration," PSI revelation, genius, and material effects on the surface environment.

humanity so that we can construct the womb necessary for the final metamorphosis of our species.

During gestation, each person develops through the entire sequence of biological evolution. Conventional wisdom believes that the evolution of the human body is completed in the maternity ward. This is not true. Not only does the human body grow from infantile dependency to adult independence, but each person also experiences, concurrently, the entire sequence of socio-spiritual evolution. Evolution of the human species is not complete with sexual maturity, either. The entire human race is a species in gestation within the biospherical womb of Mother Earth. We are not completely human until we are delivered from this planet to a Heaven we now call space.

Each stage in our evolution raises the individual from isolation and impotence, and integrates him into a social body. The social body is a super organ, the placenta of our Terrestrial womb. When the social body matures to a stage sufficient to conceive and support a critical mass of perfect holy men in one generation, the entire species will be transformed in a final metamorphosis of humanity.

The super race of holy men will be so powerful in their electromagnetic radiation that all members of the social body will share a common consciousness as was seen in John Wyndham's children, portrayed in *The Village of the Damned,* a movie based on the book *The Midwich Cuckoos*. The integration of many resonating minds concentrates the PSI power to work miracles. Jesus, for example, could work no miracles by Himself; His power was due to His ability to unite His believers' minds into a common PSI field, magnifying the power of each individual mind exponentially until He could transform matter at will. The experience of sharing a common consciousness is exactly the same as the experience of two healthy brain hemispheres sharing the same mind; the left brain knows what the right brain is doing—mutual extensions of each other. When everyone in society experiences each other as extensions of themselves, there can be no war, no poverty, virtually no disease, and everyone will be blissed out as they were in Paradise before the Fall. This ideal Christian society is the promise of premature prophets, and the promise shall come to pass by genetic engineering, if we don't abort this civilization before delivery at full term.

Does an immortal society, sharing a community consciousness, strike you as biologically impossible? Well, it has already happened.[10] The same

[10]Radio and television are providing society with a common consciousness—all of us can experience the same T.V. program at the same time.

mechanics of probability that make the virus the perfect living crystal also make it possible for the small and simple social insects to complete the biological evolution without technological intervention. The social insects share a common consciousness in their communities. As near-perfect crystals, their morphology has stabilized, unchanging for millions of years. As near-perfect crystals, the social insects are, except for the breeder, reproductively sterile. In the insect community there is no poverty, no war, no individual misery, and a unifying love. Individual insects are not immortal, of course, and they still compete with other species for survival, but the social insects were not conceived by this planet to colonize the Galaxy; humanity will colonize the Galaxy.

A world without war, poverty, misery, or death sounds like Paradise, doesn't it? Well, I've got news for you. Paradise is not an executive playground where carnal desires can be indulged without stint. Holy men don't *have* carnal desires. Paradise is a hard-working university where worlds are designed, constructed, populated, and governed. Paradise, in fact, includes the vocation of interstellar exploration and colonization, demanding the same kind of devotion to civilization that inspired the men who made America what it is today. Each architect is responsible for his creations. The profits and losses are audited. The efficient creators get promotions to a corner office with a staff, while the losers are put back into training pants. All the people pounding on the Pearly Gates for admission into Heaven are like teeny-boppers, believing that adults have nothing better to do all day but spend money, tool around in flashy cars, and swing with sexual license. But admission into the society of adults means working every day, paying taxes, and bringing up the babies. Entering Heaven is like graduating from college: the fun and games are over and the real work of being *human* begins.

2

THE SCIENTIFIC KOAN

Why mathematics is made too hard to learn, and how you can make it easier

Most people have no concept of truth. They are as satisfied to be told that the mind works like a television set as a child is satisfied to be told that Santa Claus comes down the chimney. But if you don't know how a television set works, what have you learned? If you don't know how a television set works, how can you tell whether I am telling you the truth?

This book will tell you how the mind works like a television set—with waves and particles and dimensions. These are mathematical concepts. There is no way to explain how the mind works like a television set without the mathematical concepts. People who refuse to think in mathematical concepts can never understand, in verbal consciousness, how anything works, no matter how proficient they are in demonstrating operations.

Mathematical concepts are not inherently difficult or abstruse. Essential mathematics is simply applied semantics of the greatest precision and refinement. Maria Montessori proved that every child has a mathematical mind, as Shiniki Suzuki proved that every child has a musical mind; music is a mathematical language.

All mathematics is tautological. This means that all mathematical statements say the same thing from different points of view. For example, "length times width equals area" means the same as "area divided by length

equals width." Creativity is nothing more than a faculty for looking at life from different points of view. Mysticism is looking at life from points of view so different from the ones established by your society that no one else can perceive where you are looking from. Mathematics, therefore, is a creative art.

In contrast, functional neuroses and psychoses are symptoms of the way people behave when they are unable to look at their lives from the number of different points of view their peers generally regard as normal. Formal education is a discipline that prohibits children from looking at life from any point of view other than the one fixed view prescribed by society as proper for their social/economic class. As a consequence, children lose both their artistic and mathematical creativity as the direct result and intention of formal education. The average mind is inculcated into a neurotic condition; the mass mind is closer to insanity than genius.

The military-industrial establishment does not need so many creative scientistic artists as the educational system is set up to train. The last thing society wants are the working and military forces being capable of practical creativity; the first thing creative workers and soldiers do is organize a union. Formal education, therefore, is designed to occupy students with inconsequential concerns so that they are unable to see that the information they are cramming does not increase their power to determine their own lives.

In Europe, access to higher education is limited by caste. There, the elite students needed to run the country are given practical instruction in mathematical thinking at an early age. In America, belief in equality requires that authorities be exceedingly subtle in creating the inequalities that build the social structure. To most of us, therefore, mathematics must be taught as an impractical art, while the art's practicality is loudly proclaimed. As a result, mathematics and science have become as thoroughly confusing to most people as is contemporary art of the ivory tower.

Instruction in mathematics is imposed with double binds. You are ordered to think for yourself but are severely penalized if you don't think exactly the way the course of studies directs. You are damned if you do, damned if you don't. You are prohibited from applying mathematics in a practical way to solve the *real* problems you are experiencing at the time, frustrating the natural way to learn. In my day, it was forbidden to work out gambling odds in class, ostensibly because gambling was prohibited. The logic of analogues for analyzing propaganda was omitted, lest the propaganda of the school be subject to mathematical analysis. By the time girls opt for

home economics (where simultaneous equations are useful in measuring recipes), they are so turned off to math that the feminine aversion to science is believed to be genetically determined. 'Neurotic mental/emotional blocks prevent most people from looking a figure in the face for the rest of their lives; neither will they read the fine print in a contract and demand that an intelligible translation be legally binding. But as soon as a war needs trained technicians in the armed services—WOW!—instruction is made practical. In one year, boys and girls who were functionally illiterate in boot camp become competent in radar ranging, jet flying, global navigation, ballistics, and so on. The social/economic benefits gained by a mass market for computer games has resulted in kids barely out of kindergarten designing digital and analog programs that in my day would have been the work of university prodigies. And the kids are playing computers for *fun*! The most radical difference between the modern generations is not the sexual revolution, but the mathematical literacy of the computer freaks and the mathematical ignorance of their middle-aged parents.

In contrast to formal education in the sciences, discipline in the arts and skilled trades is not complete without the trial of the koan. Every student of practical creativity is given a simple form, such as an egg or cube, to study for days and weeks. The purpose of the koan is to break the hold of fundamental concepts on the students' perceptions. Every different way that an artist can express the idea of a cube is equivalent to the different equations that a mathematician can derive from a cube. Disciples of the mystic sciences receive their wings for soloing on their koan not for the number of different concepts they formulate, but by consummating their trial with the realization that the meaning of life is created each moment by each person. Objective reality is as absolute as the universe, but the meanings we derive from reality determine how we experience life and how we succeed and fail. In this way, each person becomes the master of his fate and the captain of his soul.

It is unlikely that you flipped through the illustrations in this book without realizing that it is a mathematical study. Therefore, it can be assumed that you have enough mathematical concepts to enter high school. Any difficulties you experience in comprehending this book can be attributed to three other factors:

1. Unless one is working in a technology, a person gets out of practice with operational semantics. Most people experience difficulty in reading directions on packages—an example of trying to run the semantic mile while verbally

flabby. My ability to communicate with you depends on making my language relevant to your experience. My language is determined by what I assume most of your experiences to be.

2. Changing fundamental concepts is always baffling. It is all the more baffling when you are not aware of what your fundamental concepts are. When you don't know *what* fundamental concepts are it becomes impossibly difficult. Changing concepts disorients you like losing your right hand and having to experience and manipulate your world with your left.

3. If you can follow written directions and are not educated against changing your concepts, the main reason remaining for you to find this book defying your intelligence is that the writing is completely confusing. This is where the models come in. No matter how confusing my language may be, the models work as tangible equations. Working models cannot possibly be confused. When you *grok* the meanings of the models, you will see my mistakes. Tell me about them.

These are the circumstances in which you and I come together in the fond hope that you will be entertained, if not edified, by a few hours of scientific discourse.

3

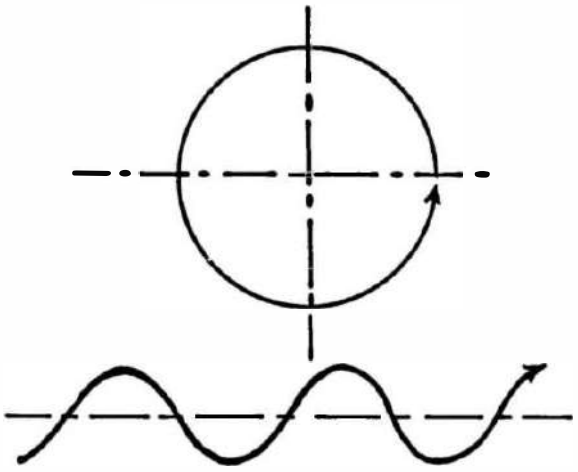
WHAT IS DIMENSION?

How you can find your way to the next dimension

You have seen how athletic power can be understood in terms of wave harmonics. Furthermore, mental power, social power, and spiritual power are also developed by harmonizing biological vibrations. Biological powers, as well as physical properties, can be described by wave mechanics. I became so impressed by vibrations that I was moved to explain everything in terms of wave mechanics, just to see how far this simplistic concept could be carried until reality contradicted it. Contradictions were resolved as they appeared with the realization that waves are not as simple as is generally supposed. Wave structure can be so subtle and complex that it seems no phenomenon can be found without some kind of wave structure being able to comprehend it.

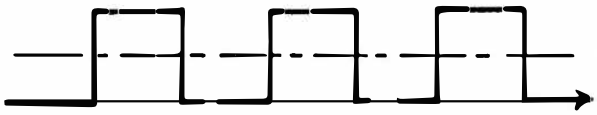
The ideal wave can be represented as a circle—the eternal circle of the Ancients. The common conception of a wave is the circle opened out into the regularly reversing curve that mathematicians call a sine wave. But there are also square waves, dentate waves, biased waves, skewed waves, broken waves, and die waves. All polygons are wave forms. There is even the solenon, a single wave without continuation in any direction. There are radiant waves, traveling waves, shear waves, and standing waves. There are random waves, collimated waves, and coherent waves. The familiar wave is a unidimensional line, but there are also bidimensional waves, such as those you see spreading out from a stone dropped into water, and tridimensional

VIBRATIONS ARE WHAT THIS BOOK IS ALL ABOUT

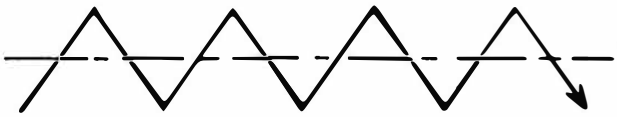


THE IDEAL WAVE IS A CIRCLE.

THE COMMON IDEA OF WHAT A WAVE SHOULD LOOK LIKE OPENS THE CIRCULAR WAVE INTO A SINE WAVE. THE SINE IS THE MATHEMATHICAL FORMULA THAT DESCRIBES A CONSTANTLY REVERSING REGULAR CURVE.

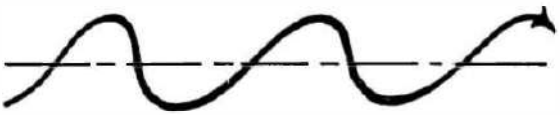


SQUARE WAVES



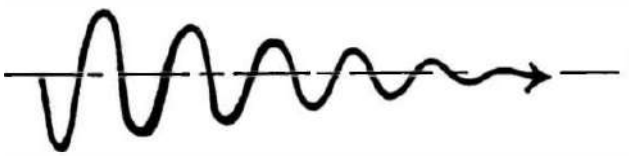
DENTATE WAVES

BIASED WAVES



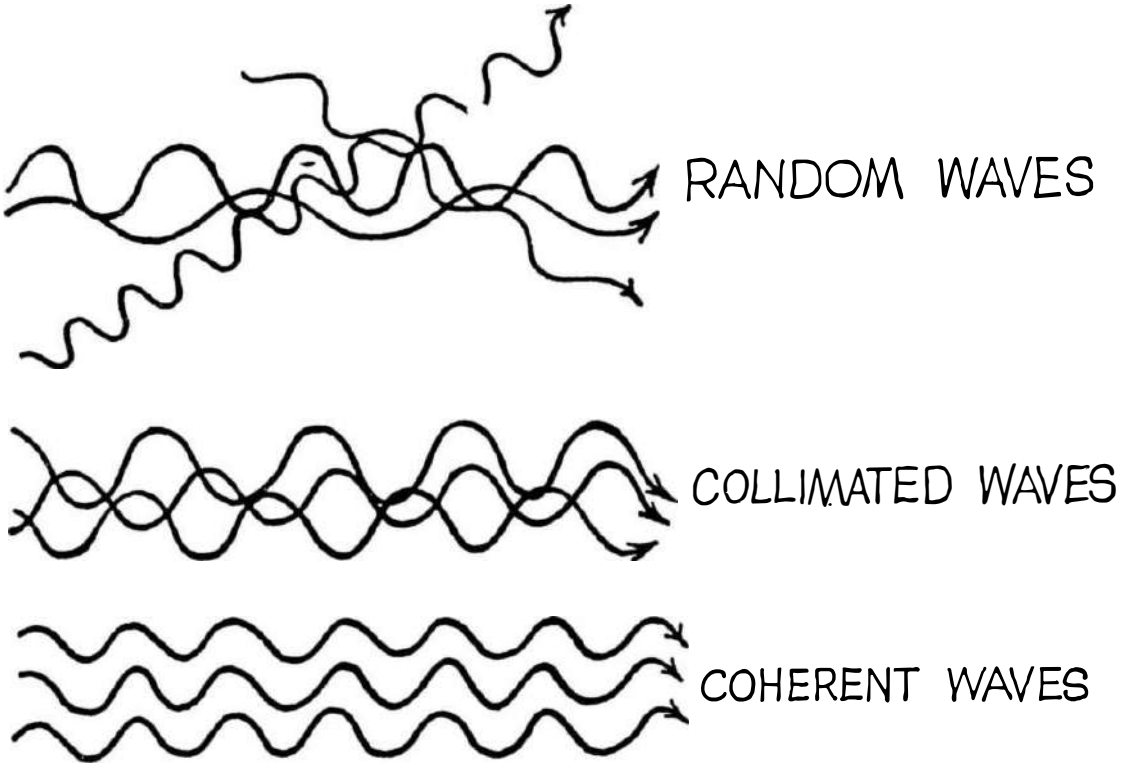
SKEWED WAVES

BROKEN WAVES



DIE WAVES

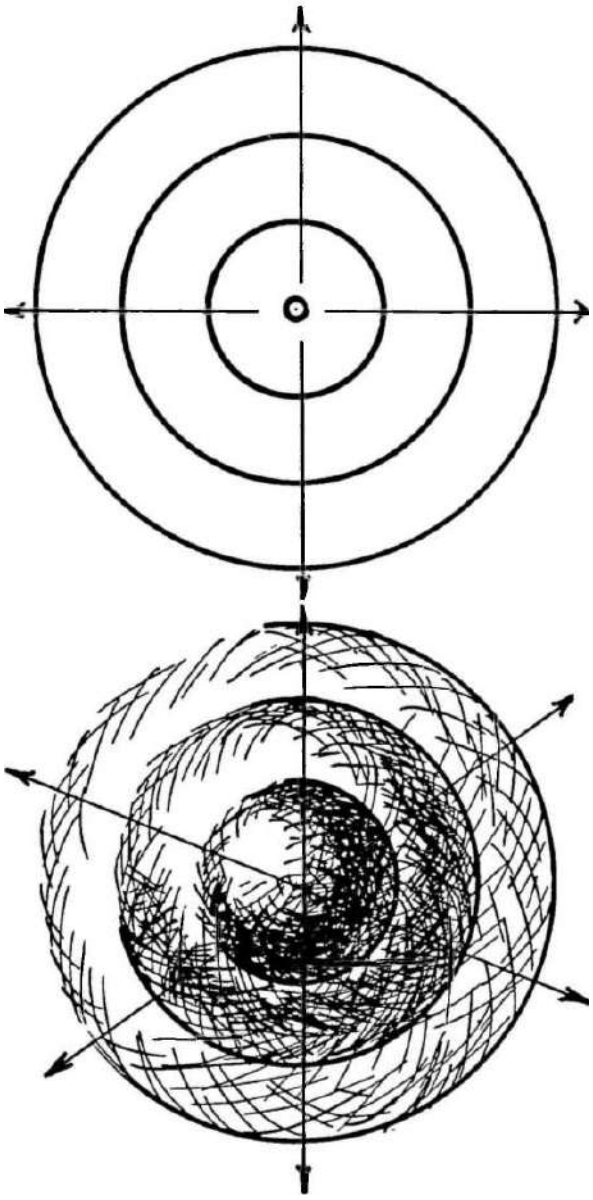
A SOLENON



waves, such as light radiating in all directions from a spark. There are simple waves of a pure frequency, compound waves generated by superimposed harmonics, complex waves including "beats" generated by superimposed discords, and all possible combinations of waves. Compound waves extend into the fourth dimension, waves of changing beat overtones span five dimensions, and compound-complex waves are six-dimensional structures that can be represented by a planetary gear assemblage.

Viewed from an elevation in a higher dimension, a wave pattern on the plane surface of water can be seen in its entirety at every moment. At water level, however, waves can be seen only as a periodic rise and fall of the surface at successive instants in time. At any given instant, the water level is static, and there is no evidence of a wave structure. We view the waves of the universe at water level, so to speak, where it is impossible to detect movement except as a succession of changes during successive instants.

To Western philosophy, the phenomenon of change is incomprehensible because of our fundamental concept that reality extends through continuous Absolute Space and Absolute Time. For the purposes of logic, Absolute Space and Absolute Time can be subdivided infinitesimally. Every instant is static, and our concept of the space-time continuum allows no "in between instants." It follows logically that motion is impossible! The logic is impeccable, but the conclusion is obviously wrong.

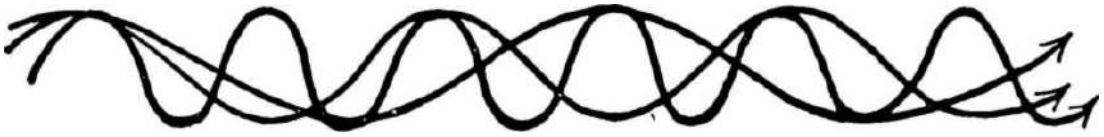


TWO-DIMENSIONAL WAVES

THREE-DIMENSIONAL WAVES

Differential calculus solves the practical problem of calculating motion by representing successive positions of a reference point in time as successive points plotted on a plane graph. Because time is represented as a coordinate on the graph, mathematicians began to think of time as a dimension.

When energy levels at successive instants in time are plotted, it is found that each point manifests a specific speed, a specific direction, and a specific resistance to alteration of velocity. Consequently, these three properties of energy are added to the dimension of time, and the four are added to the three established dimensions of space. A few mathematicians view the calculation as sufficiently real to conceive of six dimensions of space plus time, but conventional wisdom regards the operations as merely convenient fictions.



COMPOUND WAVES

COMPLEX (BEAT) WAVES

The fundamental concepts of our reality maintain that there are three dimensions of space plus time, and all the rest are mathematical abstractions utterly impossible to express as a tangible structure.

Calculus works because it divides space and time into quantum units representing successive locations in space and successive instants in time, each unit represented by an immeasurable interval. In discontinuous space, motion is possible with no contradiction to logic or empirical experience. Now, if each tridimensional unit is represented as a point and the intervals between them are represented as continuous hyperspace (defined by extension in three dimensions), it becomes possible to visualize and calculate six-dimensional hyperspace. This process of reducing space to a point when the number of dimensions exceed the means of representation and then continuing to add further dimensions on a higher scale is not just convenient for calculation. Evidence indicates that this is actually the way we perceive the universal chaos.

Popular fantasy is titillated by fictions of "alternative realities in other dimensions parallel to ours." To some people, this hypothesis makes sense, to others it is nonsense. "Alternative realities in other dimensions" doesn't have any objective meaning unless you understand the concept of "dimension." You also need to know what "reality" means before the phrase "parallel reality" can be anything more than a play on words. To form an operational conception of "dimensions," review the generation of dimensions as you were taught in grade school.

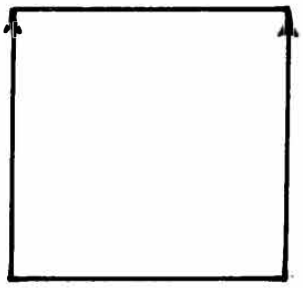
A space of no dimension is defined by a point.

A moving point traces a line. That line defines a space of one dimension: length. In a space of one dimension, any specific point can be

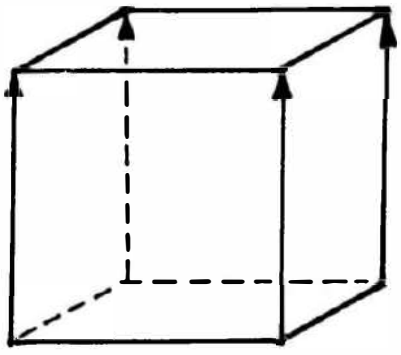
HOW TO GENERATE DIMENSIONS

A POINT HAS LOCATION
BUT NO DIMENSION IN SPACE.

A MOVING POINT OPENS A SPACE.
OF ONE DIMENSION.
A LINE REPRESENTS SPACE OF
ONE DIMENSION.



A MOVING LINE SWEEPS A SPACE
OF TWO DIMENSIONS.
A SQUARE IS A CONVENTIONAL
MODEL OF TWO-DIMENSIONAL
SPACE.



A MOVING PLANE EXPANDS
SPACE INTO A
THREE-DIMENSIONAL VOLUME.

located by a single number representing a distance in units from the point of origin, the point from which all measurements are made.

If you were a unidimensional consciousness living in unidimensional space, all you could see would be directly in front of you and directly behind you. You would have no way of knowing that your space was curved in a higher dimension unless you came back to your starting point in your travels. Since only one line can exist in unidimensional space, an intersection would tell you that you lived on one line among other lines in a "universe" of at least two dimensions.

A moving line sweeps a space of two dimensions. The line can rotate around one of its ends to open an angle, or both ends of the line can sweep, but

the space opened by the line is at right-angles to the line. To locate a point on a plane, two measurements are needed: the distance along a reference line and the distance at right-angles to that reference line.

If you lived in Flatland, you would be able to see nothing but lines at various angles. The discovery that one of these lines was formed by another plane intersecting Flatland would lead flatheads to deduce that there must be a third dimension of space, because no more than a single plane can exist in bidimensional space. If an explorer returned to his home after a trip around the world in one constant direction, the plane folks would deduce that their plane was curved in the form of a cylinder. If explorers circumnavigated the plane in all directions, they would know they lived on a globe.

A moving plane opens a space of three dimensions. The volume is measured at right-angles to the plane. To locate a point in a volume, three measurements are needed: the distance along one line of reference, a second distance at right-angles to the line, and a third distance at right-angles to each of the other two coordinates.

If you were a tridimensional creature living in tridimensional space, you would see no more than planes at different angles, as a camera sees. Only a single volume can exist in tridimensional space. The fact that we do *not* see as a camera sees indicates that we are more than tridimensional creatures and that we live in a space of more than three dimensions.

From the operations and observations made in the generation of dimensions, we can make a number of deductions:

1. In a space of a given number of dimensions, no other space of the same or greater number of dimensions can exist. For example, two physically discrete planes cannot coexist in the same two-dimensional space.

2. In a space of a given number of dimensions, an infinite number of spaces of fewer dimensions can coexist. For example, an infinite number of lines can coexist on the same plane. An infinite number of planes can coexist in the same volume. Therefore, an infinite number of discrete volumes can coexist in ultratridimensional hyperspace.

3. In a space of a given number of dimensions, an infinite number of spaces of the same number of dimensions can coexist in the same space, *provided* that each of the coexisting spaces is projected to a lower dimension. This reads like a contradiction of terms, but you can see that an infinite number of lines can coexist on that same line at a common point of

intersection. Likewise, an infinite number of planes can coexist at a common line of intersection on the same plane. An infinite number of volumes can coexist in the same volume on the common plane of intersection. An infinite number of hypervolumes can coexist in the same hyperspace in the volume of common intersection. (This last example is important because it means that every volume we see in our space can be a tridimensional cross-section of a hypervolume in hyperspace. In fact, this is the way it is.)

4. The space an observer can see directly can never extend in more dimensions than the dimensions of the observing mentality. The observed space must always be one dimension fewer than the space defining the observer.

5. Space can be expanded into higher dimensions with no theoretical limit; there may be real limits. Each dimension of space is generated by successive rotations of 90°. An observer in three-dimensional space can represent a volume as a point to generate a second set of three dimensions expanding into six-dimensional hyperspace, and a hypervolume can be represented as a point to generate higher dimensions beyond hyperspace.

6. Each expansion of space into a higher dimension multiplies the point-events defining space by itself. For example, the rotation of a line to sweep a plane means that the number of units on the length is multiplied by the number of units on the width.

Failure to understand the elementary operations of geometry allows mistaken notions about dimensions to become current. To illustrate that time is a fourth dimension, for example, professors replace an object with another object in the same location. This simple operation is represented as a proof that several volumes can occupy the same space at successive moments in time. But a strict mathematical definition of four-dimensional space demands that two objeccts occupy the same space at the same time. Putting two objects in the same space at successive times is not quite the same thing.

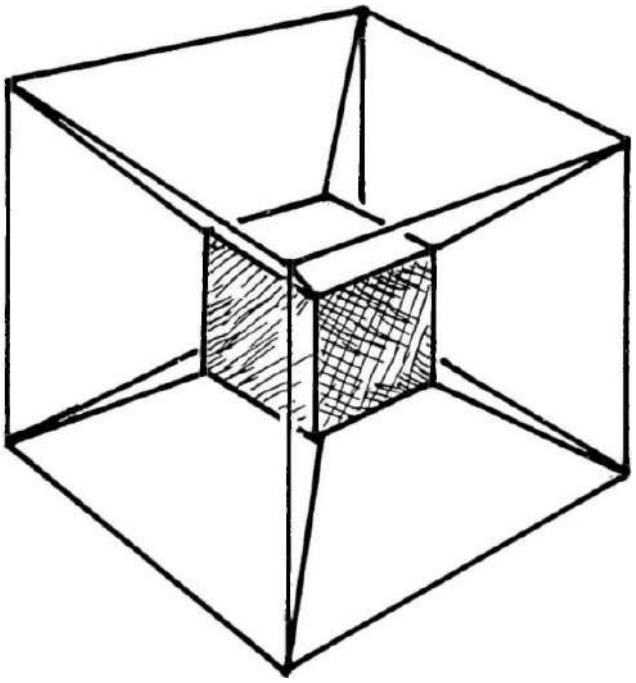
Another fallacy is identifying dimensions with coordinates. Schrödinger proved that each materially-defined electron requires a separate tridimensional space for its existence. He went out of his ballpark by inferring that two electrons require six dimensions, three require nine, and so on. Schrödinger was essentially correct in his calculations, but his theory was dismissed as absurd because he failed to realize that only four dimensions are required to contain any number of tridimensional electrons.

The most common misconception is that the space we live in is a continuous, absolute volume. To discern the error in this naive assumption, draw a number of plane figures on a sheet of paper. Those figures cannot possibly move in any way. In order to move them, you must cut them out of their plane matrix. As soon as they are released from their matrix, they become alternative planes in trispace. All movement in a space of a given number of dimensions requires rotation in a space of one more dimension. The observed movement of three-dimensional objects in our ordinary space means that the empty space between objects is four-dimensional. Empty space extends at right-angles from the plane surfaces of solid objects, conforming to the rule that higher dimensions can be represented by projecting volumes into fewer dimensions.

For thousands of years, mathematicians have been baffled by the problem of trisecting the angle with compass and straightedge. For thousands of years, tailors and sheet metal workers have been polysecting angles without knowing the operation is impossible. How? They project the coordinates into a higher dimension, perform the operations impossible on a plane, and project the solution back into lower dimensions. You roll the paper, on which the angle is drawn, to form a cone. The arc of the angle now forms a plane circle. The dimensions of this circle can be transferred as a straight line to another sheet of paper with compass, and the line is sectioned in perfect proportion. The sectioned line is then referred to the cone, and, when the cone is unrolled, voilà! The angle is trisected.

Of course, the precision of the trisection is limited by the precision of the mechanical operation. But *all* operations of compass and straightedge are limited to the precision of the mechanics. Absolute accuracy is possible only in theory, and the tradesmen's operations are just as perfect in theory as the mathematician's. The inability to conceive the problem in three dimensions instead of two indicates lost creativity. Uncreative teachers reject the tradesmen's solution, insisting that planes cannot be bent. But where did Euclid say that? In mathematics, no assumption can be established implicitly; no rules can be made after they are broken. Until professors have a practical *need* to trisect angles, they will continue to insist the operation is impossible. As long as tradesmen earn their living by sectioning angles, they will continue to do it.

The most fascinating of the red herrings in sci-fi literature is the tesseract. A tesseract is a four-dimensional cube conceived as the six faces of a cube expanded into six cubes, each cube being joined to four other cubes like the six planes of a tridimensional cube. Furthermore, all six of the tesseract's cubes occupy the space of one cube.



A 4-D CUBE IS CALLED A TESSERACT.
BY CONVENTION, A TESSERACT IS PROJECTED A SMALL CUBE INSIDE A LARGE CUBE, WITH ALL CORNERS JOINED.
A CUBE FILLED WITH LIGHTS OF SIX DIFFERENT WAVELENGTHS, SUCH AS RED, YELLOW, GREEN, ORANGE, BLUE, AND VIOLET, IS A TRUE TESSERACT.

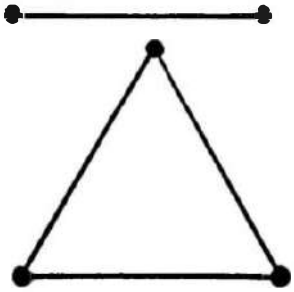
Projecting the geometrical coordinates of a tesseract from fourspace into threespace represents it as a small cube in the center of a larger cube, with the corners of the small cube joined by lines to the corners of the large cube. The tesseract is a beautiful structure, and its projection is quite true. But unsophisticated fans have developed the idea that hyperspace is full of tesseracts. Actually, hyperspace contains many tridimensional volumes, of different configurations, occupying the same space.

The tesseract is only one of the fascinating structures that can be projected from hyperspace. Projection can be understood most readily by the

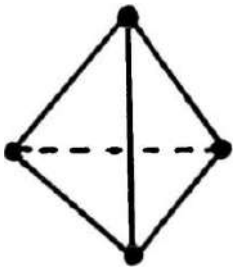
THE MINIMAL DEFINITION OF SPACE

THE MINIMAL STRUCTURE OF 0-D SPACE IS A POINT.

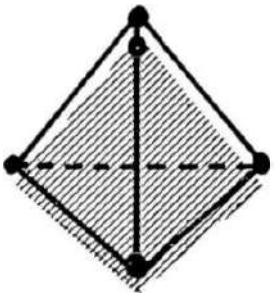
THE MINIMAL STRUCTURE OF 1-D SPACE IS A LINE.



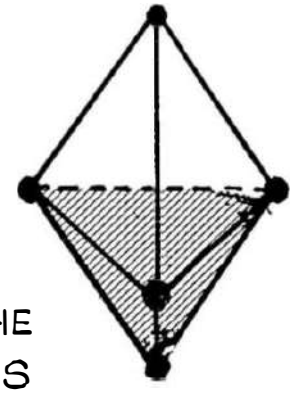
THE MINIMAL STRUCTURE OF 2-D SPACE IS A TRIANGLE.



THE MINIMAL STRUCTURE OF 3-D SPACE IS A TETRAHEDRON.



THE MINIMAL STRUCTURE OF 4-D SPACE IS TWO TETRAHEDRONS OCCUPYING THE SAME VOLUME. THEY ARE SHOWN SEPARATED FOR CLARITY IN THIS DIAGRAM.



A 4-D TETRAHEDRON PROJECTED INTO 3-D SPACE BECOMES A HEXAHEDRON. THE TOP HEXAHEDRON REPRESENTS A REAL OBJECT IN REAL SPACE. THE BOTTOM TETRAHEDRON REPRESENTS A POTENTIAL OBJECT IN PAST/FUTURE SPACE. THE TWO TETRAHEDRONS CORRESPOND WITH THE POSITIVE AND NEGATIVE PHASES OF A WAVE.

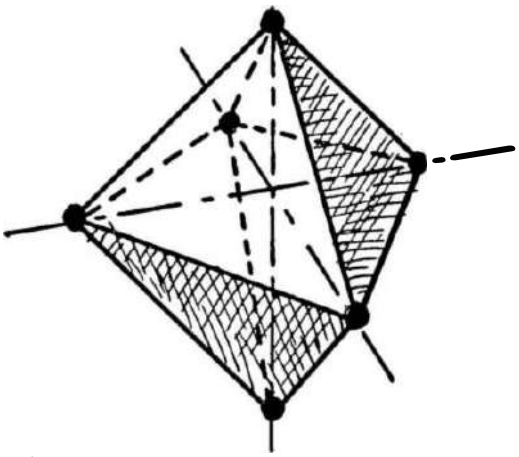
principle of minimum construction. A line is the minimum structure of unidimensional space. A line has two points joined together by a continuous space. A triangle is the minimum structure of bidimensional space. A triangle has three points joined together by lines. A tetrahedron is the minimum structure of trispace. A tetrahedron is defined by four points joined together by lines. The rule is that the minimum structure is defined by as many points as it has dimensions, plus one more point.

The minimum structure defining four-dimensional space has five points. A five-pointed, regular solid is a hexahedron. A quadridimensional tetrahedron is a pair of tetrahedrons occupying the same space. If you make a pair of tetrahedrons from paper, and put one inside the other, you will have a fair idea of how a four-dimensional tetrahedron appears to three-dimensional eyes. Now, if you pull the inside tet out of the outside tet, everting the inner tet so that when it is fully extracted, one will be inside out and joined to the other at one plane, you will have an accurate projection of a four-dimensional tetrahedron.

In mathematical notation, one of the tetrahedrons is designated by plus signs, while the everted one is represented by minus signs. In engineering, plus signs represent real and solid objects, whereas minus signs represent energy. In other words, the minimum structure of quadspace is a moving tetrahedron. A material object detectable at a given instant corresponds to the outer form of the four-dimensional structure; its successive locations at successive instants are implicit in the outer form and corresponds to the inner, everted forms. Mathematicians can calculate the trajectory of a moving object as the progressive eversion of the inner into outer forms at successive locations while the outer forms revert to inner forms. You have been seeing moving bodies all your life; perceiving them as four-dimensional structures only requires a higher mathematical perspective, but otherwise, hyperspace is the same old world you have always known.

The minimum structure of five-dimensional hyperspace has six points. A six-pointed, regular solid is an octagon. The octagon is a projection into trispace of eight tetrahedrons, all of which occupy the same tetrahedronal volume in quinquespace.

As you proceed through this book, you will see that hyperspace is no different from the ordinary space we have always known. We are able to see three-dimensional objects because our minds are four-dimensional. A four-dimensional mind is able to fuse all the two-dimensional images of our material senses into a single three-dimensional structure. By expanding your mind into the fifth dimension, you are able to perceive four dimensions of



THE MINIMAL STRUCTURE OF 5-D SPACE IS EIGHT TETRAHEDRONS OCCUPYING THE SAME VOLUME.
A 5-D TETRAHEDRON BECOMES AN OCTAHEDRON WHEN PROJECTED INTO TRISPACE.
THE FOUR SECTIONS OF THE POSITIVE PYRAMID CORRESPOND TO FOUR HARMONICALLY INTEGRATED STRUCTURES, SUCH AS RADIO CIRCUITS OR MUSICAL STRINGS, RESONATING TOGETHER.
FOUR PEOPLE UNITED BY MENTAL TELEPATHY BECOME A 5-D PERSON.

hyperspace in the same way that you now see three. Like discovering a new world from the altitude of an airplane, all that really changes is your point of view.

All the common material structures we see dancing in the quadridimensional continuum of empty space are really tridimensional cross-sections of hyperspacial entities. In other words, your personal body is merely a cross-section of an eternal Godlike being that has numerous other cross-sections manifest in this reality. Your entire life represents the continuous extension of your body through four-dimensional space. From each instant of your four-dimensional body, all the alternative lives you could have led, if you acted differently than you did, branch off into the fifth dimension of hyperspace.

You have a six-dimensional consciousness holding your hyperspacial body all together, which enables you to review the past and contemplate the probable futures of alternative actions.

We are informed with an instinctive hunger to know about the higher dimensions of space-time. This instinctive curiosity is the mental expression of the presently undeveloped organ of consciousness that attains full maturity with the direct perception of hyperspace. The perception of our whole, Godlike entity in hyperspace is the spiritual destiny of each individual, like procreation is the carnal destiny of most children, and sexual curiosity is the mental expression of immature sex organs.

Hyperspace is the first order of Heaven. To perceive hyperspace is to arrive on the ground floor of God's kingdom. What is life in Heaven? Well, arriving in Heaven is just like growing up, leaving school, and starting your first job. You realize there is no Santa Claus, your parents are tired of supporting you, and you have to meet the cost of living and take responsibility for your life. In other words, Heaven is where you pick up the buck. The way to Heaven is not by meditations, prayers, and devotions. You arrive in Heaven the moment you pick up your buck. A lot of people think that Heaven is getting room service, instead of serving—that is the hell of it.

4

THE SIX DIMENSIONS OF THE UNIVERSAL HOLOGRAM

How you can explore hyperspace

How long is a minute? A minute is a sixtieth part of an hour. So, how long is an hour? An hour is a twenty-fourth part of a day. How long is a day?

Silly questions? A day is the length of time between two successive passings of a regular celestial body over the meridian, overhead. There is a Solar day, a Lunar day, and a Stellar day. Take your pick. Since we have days of three different lengths, how long is a minute?

It depends on what you do for a living. Astronomers work by the Stellar day, but industrial workers put in four minutes more on the Solar day. The Lunar day is observed mainly by astrologers, navigators, and beachcombers. Time is measured by a regular cycle arbitrarily chosen as a standard unit. A minute is as long as authority decrees.

What would happen if a period of Terrestrial rotation and/or revolution changed from cycle to cycle? How should we know that the length of the day had changed, changing the length of the hour and the minute with it?

There is no way to detect alterations in the periods of the planetary cycles except by comparing them with another cycle believed to be independent of the planet. And there is no way to tell whether the Earth is irregular or whether the other period is irregular by the comparison. All that we can determine is that they are irregular when one is compared to the other.

As it happened, before the present mechanistic era, days were defined from sunrise to sunset, and nights from sunset to sunrise. Hours during

summer days were longer than the hours of winter days, and vice versa for the respective nights. The difference between summer time and winter time was not great in the Mediterranean centers of civilization, and elastic hours are practical for agriculture. If more hours cannot be packed into each day, more day can be packed into each hour.

As mechanistic concepts developed in Northern Europe, babies were put on bottle schedules, and food began to be prepared from written recipes instead of "a pinch of spice and browned to a turn." The founding fathers of mechanism realized the necessity for standard time when their wives served the hard-boiled eggs, prepared for four minutes, exactly as ordered. And that, O Best Beloved, is why the Mean Solar Day was established as a constant standard of time for hours, minutes, seconds, navigators, babies, and soft-boiled eggs for breakfast.

A day is an inconveniently long unit for measuring time. Moreover, extremely critical recipes, such as cooking an image on the film of your camera, revealed that the rotation of the Earth is as far out of synch with the electrons in silver halide as an hourglass is that's filled with mixed gravel. So, beginning with the period of a pendulum exactly one meter in length, increasingly finer natural cycles were established as successive standard units of time. In the present state of the art, a second is defined as 9,192,631,770 vibrations of a cesium atom at a specified state of electronic excitement—no matter how long *that* takes. Minutes and days are multiples of the prime second. If the period of the cesium atom varies, or if the time keeper loses count, no one will ever know that the second has changed its duration—until the accumulation of errors hard-boils a four-minute egg.

Einstein proved that time is a function of velocity. This is assumed to mean velocity in *space,* and dislocations in the time streams between compared frames of reference are not supposed to be perceptible until relative velocity approaches the speed of light. But as you have just seen, time is defined by vibrations. Mathematically, a change of frequency is equivalent to a reciprocal change of velocity, if wavelength remains constant. Therefore, defining a time frame by a specific frequency is equivalent to defining a time frame by a specific velocity.

Psychological experiments prove that frequency defines a time frame. Hypnotized subjects are told that the beat of a metronome is at one-second intervals. As the metronome is speeded up, the subjects increase their activity, *without being aware of the increasing tempo,* until they collapse in manic exhaustion. On the other hand, when the metronome is stopped, the subjects

become catatonic. When the metronome is restarted, the subjects resume whatever they were doing or saying, with no perception of time lost.

Unmeasured experiences of people under mortal stress testify that a person can retard perceived time until explosions are observed as if in slow motion, and a bullet can be seen emerging from the muzzle of a gun. A witness to the abduction of a court judge during a trial said in a national magazine that the judge's face seemed to peel apart when his head was blown off by a shotgun blast. People who have survived accidents that should have killed them can often remember how the split second seemed to last for several minutes.

The velocity of time in an observed frame is measured by comparing the frequency of the vibration defining that frame to the frequency of the vibration defining the observer. The greater the difference between the two frequencies, the faster events are perceived to occur in the higher-frequency frame relative to the other. Conversely, if frequency and phase in one frame are exactly in synch with frequency and phase in the other frame, no time velocity is perceived between the two frames, a state of absolute stillness is created between observer and observed and time stops. This is the experience of "going with the flow," and all superathletes will testify that it really happens.[1]

A span of time is defined by the length of the measuring wave multiplied by the number of continuously successive waves occurring during the time span. Since all vibrations manifest a wave length, time proves to be a measure of space. This is how Einstein came to recognize that space and time are two mutually convertible modes of perceiving energy. The amount of space measured by its equivalent span of time depends upon the velocity of the wave. The electromagnetic wave establishing our most precise means of measuring time in this material reality proves to have a velocity of 186,000 miles per second. Therefore, every second is equivalent to 186,000 miles of space, regardless of the frequency of the wave.

If all waves were of the same length and velocity, it would be impossible to measure or detect anything, because there would be no contact between waves. In such a hypothetical state, reality could not exist as a scientifically provable phenomenon. Detection and measurement are possible only by the

[1]After reading the Unified Field Theory in the sixth chapter, you will understand that, during the state of superconductivity, waves increase their velocity through the body of a Master, while frequency remains constant. Biological superconductivity, therefore, extends the amount of space that each second spans in the universe. The Master has more space/time to move around in than his opponents, and his mind can compute many more alternative responses while the normal person is responding to one action. To the Master, the world is in slow motion.

contact of one wave against another. When waves intersect, one wave detects the other—by the effect of one wave upon the other—and objective reality comes into tangible existence. When waves are flowing apart, no contact is possible and tangible reality ceases to exist. As waves flow to and fro, therefore, reality must blink on and off, like successive frames of movie film are projected for our minds to observe.

Wave collision is an all-or-nothing phenomenon. Therefore, during the instant while reality blinks into existence, nothing can possibly move. The tangible universe is absolutely motionless at each instant, exactly the way Greek philosophers conceived it.

When our reality is blinked out of existence for a timeless interval, what do you suppose happens? Well, the wave collisions that create our reality are defined by a specific phase alignment of waves. When our unique phase alignment is not in existence, all other possible phase alignments must occur. In other words, during the interval when our reality is blinked off, all other possible realities exist, each in its own instant.

The extension of a wave through hyperspace can be described as a helix. A line drawn along the length of the helix, on its surface, touches each successive cycle at the same phase. This "world line" represents successive instants in our reality. All other realities are located on intersecting and on parallel lines around the rest of the wave cycle.

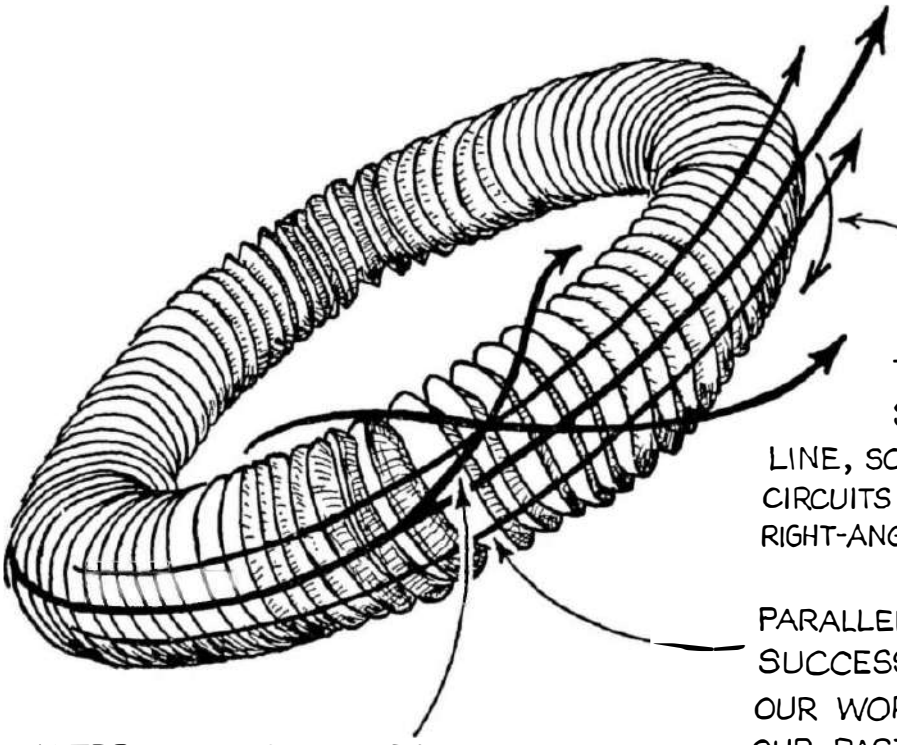
As long as our means of perception exceed the dimensions of each instant by several orders of magnitude, we can keep our heads together and disregard the effects of discontinuous space-time as curiosities of no consequence. But when our means of perception are refined to the scale of the quantum interval, discontinuity becomes apparent and mechanistic philosophy falls to pieces.

The helix of space-time shows that time and space are actually continuous (as we intuitively believe), but the continuity extends at right-angles to our time stream through all other possible realities and back again. It is along the world line of our reality that space-time is discontinuous, blinking in and out of existence.[2]

Now, if you follow the continuous wave line around the coil of hyperspace through all the possible alternative and parallel realities, you will

[2]Acute mathematical purists will eventually straighten out the helix to project a straight world line and will ask how change is possible between parallel realities. A finer helix extending through still higher dimensions of ultraspace beyond hyperspace continues the geometry indefinitely, but we need not concern ourselves with the geometry of ultraspace before we understand hyperspace.

THE TORUS OF TIME



OUR WORLD-LINE THROUGH SPACE-TIME.

EACH CIRCUIT OF THE WORLD-LINE AROUND THE TORUS OF SPACE-TIME SHIFTS TO A PARALLEL LINE, SO THAT PAST AND FUTURE CIRCUITS FOLLOW A HELIX AT RIGHT-ANGLES TO THE WORLD-LINE.

PARALLEL REALITIES ARE SUCCESSIVE TURNS OF OUR WORLD-LINE FROM OUR PAST TO OUR FUTURE.

ALTERNATIVE REALITIES BRANCH OFF FROM OUR WORLD-LINE

ALIEN REALITIES CROSS OUR WORLD-LINE ON A SCREW OF A DIFFERENT, HARMONICALLY-DEFINED PITCH. INTERSECTION WITH ALIEN WORLD-LINES PRODUCES TRANSIENT MYSTERIOUS PHENOMENA SUCH AS UFOs, MONSTERS & HALLUCINATIONS

THE E/M WAVES OF SPACE-TIME HAVE A HELICAL STRUCTURE. EACH SUCCESSIVE TURN OF THE SCREW IS EACH SUCCESSIVE INSTANT OF OUR TIME STREAM.

HARMONIC BLEED-THROUGH BETWEEN SUCCESSIVE TURNS OF PARALLEL REALITIES SUFFUSES OUR REALITIES WITH INFLUENCE OF PAST AND FUTURE.

WORLD-LINES NOT PARALLEL TO OURS REPRESENT ALTERNATIVE REALITIES WHERE TIME FLOWS AT A DIFFERENT SPEED FROM OURS.

ALTERNATIVE REALITIES ARE CREATED BY THEIR UNIQUE HARMONIC INTERVAL BETWEEN SUCCESSIVE INSTANTS.

AS WELL AS MYSTERIOUS PHENOMENA, BLEED-THROUGH FROM ALTERNATIVE REALITIES PRODUCES DREAMS, ART, AND OTHER FANTASTIC CREATIONS.

infer that the location of every event in our reality, from one instant to the next, is determined by the continuous progress of those events around the helix. In other words, all changes in this reality are the effects of events occurring in other realities. If there were no alternative realities to maintain the space-time continuum, it would be impossible for changes to occur between the instants of our reality. By way of illustration, we can see that the location of every event in our reality when we get up in the morning depends upon what happens during the night when we are not conscious to watch it.

This geometry will seem less strange when you realize that it is the same as the model of modern physics. According to quantum field theory, every event in this reality has a certain probability of happening. If an event has a 10 percent chance of happening in this reality in the next instant and it happens, where do you suppose the other 90 percent chances are manifest? Right! In parallel realities that physicists call the "virtual state of the quantum field." All the events in the quantum field, that physicists call probabilities, determine what will happen during the next instant in our reality.

If the universe is sufficiently extensive, all possible phase alignments must eventually occur in our time stream. This means that all the possible alternative realities existing during the interval when our reality is blinked out are actually the past and the future of our reality. In other words, the past and future are folded between the instants of our material reality.

Mathematicians will recognize that the negative tetrahedron contained in the same space as the positive tetrahedron, described as a four-dimensional tetrahedron in the previous chapter, corresponds to the way past and future events are folded between the instants of our material reality.

As an illustration for nonmathematicians, during the instant that you observe a material wave in its up phase, the down phase of that wave exists in a parallel reality. As we travel through space-time at 186,000 miles per second, the down phase becomes materially manifest in our reality.

If events in our reality are determined by what happens in parallel realities, then present events are determined by the past and the future more than they are determined by the present. Classical science accepts the fact that present events are shaped by the past. Modern science's statement that the present instant is determined by past probabilities is equivalent to saying that the present is determined by probable futures. The Classical Mechanic's failures to explain life (a quantum effect manifest on the human scale) is due to the influence of future events casting their shadows back into their pasts; the present is the future's past.

Mystics have always known that behavior is no less determined by events that will be realized in the future than by events that happened in the past. According to Quantum Theory, pasts must be no less probable than futures. Each of us is created by a God for a purpose no less than we were created by a biological niche that opened up long enough for conception to occur before contraception could squeeze us out again.

The quantum units of our reality are established by electromagnetic waves. Everyone with elementary knowledge of radio knows that electromagnetic waves are tridimensional in form. Every wave is defined and discrete from every other wave by difference in frequency and/or wavelength. (Were this not so, it would be impossible for commercial radio to keep the programs of different stations separated, and only a single station could broadcast at one time.) Everyone knows that all radio programs occupy the same air space at the same time. When we get stereo-holographic television, it will be evident that an indefinite number of voluminous images occupy the same broadcast space at the same time. We select the program we wish to receive by frequency tuning. Mathematical definition tells us that space requires four dimensions in order to contain more than one three-dimensional structure in the same three-dimensional location at the same time. This means that electromagnetically defined space must extend in at least four dimensions. *Frequency* or *wavelength* or *energy level* is the *fourth dimension.*

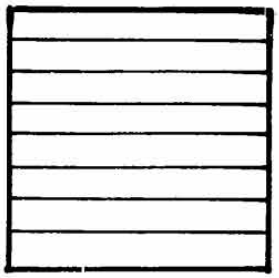
It was not necessary to wait until electronics were developed to discover that our space is four-dimensional. Sound waves have the same structure as radio waves. All the theory that is presently being conceived by experiments with electromagnetic waves could have been discovered by the Ancients studying sound waves and music—and they probably were.

Our reality is created by the mutual oppositions of an infinite number of electromagnetic waves. We coexist in the same hyperspace with all other possible realities (our past and future), and each other reality is created, as we are, by a specific phase alignment of universal electromagnetic waves. Each reality is defined from every other reality by the specific phase alignment of its generating waves. It is necessary that the universe extend in at least five dimensions in order to contain more than one four-dimensional reality. Therefore, *phase* is the *fifth dimension.*

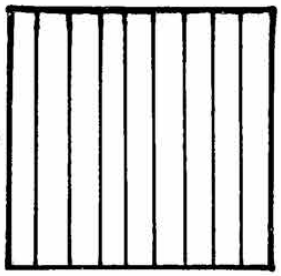
You can construct a model to illustrate how a four-dimensional quantized universe unfolds into the fifth dimension. Assemble a cube of convenient size from six sheets of clear plastic. On each face, drill small holes, 2 inches apart on a squared grid. Pass a red thread between all opposing

4-D SPACE IS REPRESENTED BY SEVERAL 3-D VOLUMES CONTAINED IN THE SAME VOLUME.

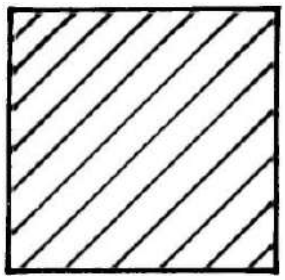
A 4-D VOLUME CAN BE REPRESENTED ON A PAGE BY USING SQUARES AS CUBES.



ONE SQUARE IS DEFINED BY RED LIGHT

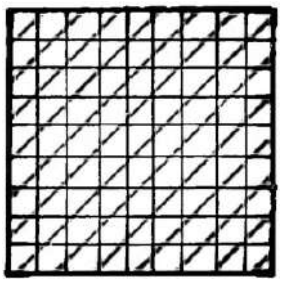


ONE CUBE IS DEFINED BY GREEN LIGHT



ONE CUBE IS DEFINED BY BLUE LIGHT

PUT THEM ALL TOGETHER IN THE SAME VOLUME AND YOU HAVE A 4-D VOLUME



ORDINARY SPACE FILLED WITH WHITE LIGHT IS A 4-D VOLUME.

faces so that the threads subdivide the interior of the plastic cube into two-inch cubes. Drill another set of holes like the first, 1½ inches apart, beginning at the same points of origin as the 2-inch grid. Thread these holes with white. A third set of holes, on ⅔-inch centers starting from the same origin, is threaded with blue. Now you have a cubic volume subdivided into three different sets of interpenetrating cubic volumes, and all occupying the same space at the same time. If you are not bothered by the confusion of threads, you can continue to drill three more grids on ¾-inch, ½-inch, and ⅓-inch spacings, and thread them with yellow, green, and black, respectively. Congratulations! You have just built a tesseract, a construction that all scientific authorities swear is impossible. Your model tesseract corresponds to a box defined by six colors of light.

The four-dimensional cube is explored by following the rules of Quantum Mechanics. All movement must follow the line of a thread in steps of one intersection to another, corresponding to quantum jumps between quantum intervals. Only where two or more threads coincide at the same intersection is it permitted to change from one color to another. This rule illustrates frequency transformation. After you explore all the intersections of one wavelength, you can change over to another wavelength at a common intersection and explore all the points on that frequency. Eventually, you trace a path through a succession of different, mutually contiguous cubes, all coexisting in the same space. The model teaches physics students that it is possible for several volumes to coexist in the same hypervolume *if* the space occupied by the volumes is discontinuous.

Your model shows each wave as a continuous line. But the rules allow points to exist only at intersections. Electromagnetic waves do not exist in our reality except as points of intersection at wavelength intervals. Several electromagnetic waves can coexist in the same space because electromagnetic waves are as discontinuous as the reality in which they are manifest.

Points of wave intersection are indistinguishable from particles at the limit of resolution. If points and particles are fine and numerous and random enough, and if the intervals between them are too fine to be resolved, successive point locations will trace an undulating course through space-time, and a space defined by discrete points and particles becomes indistinguishable from a space defined by waves. This is one of several solutions to the wave-particle paradox that has worried physics ever since Newton proved that light possesses the mutually exclusive properties of both waves and particles.

As you inspect your tesseract, you will see that the harmonic frequencies not only occupy the same volume as the elementary frequencies, but also intersect at the same points as the elementary frequencies. This means that a particle detected at the limit of resolution is not a mathematically ideal point of no-extension in space-time; each particle is a discrete tridimensional volume filled with wave/particle intersections too fine to be resolved. In other words, the three dimensions of the harmonic intersections are reduced to a point that generates three more dimensions of space so that all other tridimensional points can coexist in a space of four and five dimensions, according to the operation described in the last chapter for expanding space beyond three dimensions.

Harmonic intersections generate regular beat-notes on a larger scale. Beat-notes intersect harmonically to generate compound beat-notes on a still

larger scale. The compounding of harmonic beat-notes to generate larger scales proceeds without end. The electromagnetic wave/particles that form the elementary pieces of our reality are actually compound beat-notes of waves too fine for material instruments to resolve. The most advanced research is currently calculating the harmonic fractions of electromagnetically defined quantum units. The atomic particles created by the intersection of electromagnetic waves combine to form compound beat-notes on increasingly larger scales in the same way as electromagnetic waves are generated by its elementary overtones. The atom is a compound beat-note comprised of atomic particles; the molecule is a compound beat-note of the spherical wave structures we call atoms.

In the fourth dimension, defined by frequency, elementary waves, beat-waves, and compound beat-waves can all occupy the same location at the same time if their energy levels are the same. Nevertheless, individual harmonics constitute different and discrete structures. In order to separate several different harmonically related realities that occupy the same space-time in the fourth and fifth dimensions, it is necessary to define each discrete harmonic wavelength by its harmonic scale. *Scale,* therefore, is a *sixth dimension*. Like energy level and time frame, scale has always been understood to be a dimension of our reality, so nothing new has been added to confuse your common sense.

Quantum Mechanics is established on the scale of elemental electromagnetic waves. Classic Mechanics is established on the scale of normal, everyday life. Relativity is established on the cosmic scale. Quantum Mechanics seems strange because it describes phenomena on a scale too fine to be resolved; Relativity seems strange because it describes phenomena on a scale too grand to be comprehended as a whole.

The significance of scale can be understood by inspecting a half-tone photograph in a newspaper or magazine. On the elemental scale of the print, there is no picture; only dots of various sizes exist. On a larger scale, the dots are integrated by phase interactions to form the complex wave patterns we recognize as a picture. Similarly, on the atomic scale, only particles defined by different energy levels exist; on the human scale, atomic particles are integrated into the compound wave structures that constitute the various formations of our material reality. Whether you see the trees or the forest depends on the scale to which your mind is focused. As a rule, people limited to menial work have minds focused on a small scale while people in supervisory positions perceive large-scale, high-dimensional structures.

(There is no reason to make an invidious comparison; a forest yields no lumber without trees and wood hewers.)

Subatomic particles can be assigned to the first scale of our material reality. The harmonic integration of particles into stable atoms establishes the second scale of reality. The integration of atoms into molecules defines the third scale. Crystals raise molecular structure to the fourth scale. The fifth scale is attained when the crystals assume the complexity of living creatures. The integration of organisms into families, clans, tribes, nations, societies, and civilizations represents harmonic subdivisions of the sixth scale of species. Specific differences are harmonized by integration on the seventh scale comprising all biological forms as a planetary biosphere. The eighth scale is planetary in extent, from the core to the Van Allen Belts. The Sun plays the music of the planetary spheres on the ninth scale. The Galaxy wheels around the tenth. This classification is arbitrary for the convenience of this moment. A proper definition of scale requires professional knowledge to put each structure in its proper place.

Industrial machinery and factories are also structures organized for the transformation of energy on the fourth and fifth scales. Machinery, therefore, can be regarded as overgrown but simple forms of life that compete with natural creatures for the resources of this planet. Depending on how industrial development is integrated with biological needs, machinery is either symbiotic or morbidly parasitic.

The expansion of space-time to a higher dimension is a function of multiplying all the point-events of the lower-dimensional space by themselves. Space-time does not expand into a higher dimension until all possible permutations of point-event locations in the lower space have been realized. As space-time expands into the higher dimension, each of the points defining the higher dimension is a permutation of the entire space of the lower dimension. In the space of higher dimension, all of its defining points multiply until all possible permutations of its points are realized. And then the higher-dimensional space begins to multiply its points by itself to repeat the cycle to expand into a space of a still higher dimension.

In the meantime, while a space is in the process of expanding from a lower dimension to a higher dimension, each and every one of its points is an entire universe on a lower dimension, and each point is a permutation of every other point. In other words, no matter what scale in the universe you analyze, every part of it contains the same information as every other part. A structure

that contains all its internal formation in every one of its parts is called a hologram.

In this Year of Our Laser, everyone has seen holograms. The disembodied head in the computer scene at the end of the film *Logan's Run* was a hologram. A hologram is made by passing the unfocused laser light reflected from an object through another laser beam so that the coherent waves of the second beam are modulated by wave interference patterns imposed by the reflected beam. A photosensitive film put in the modulated beam is fogged evenly, but the fogging is the wave interference pattern. When the plate is developed and magnified, the pattern is revealed to consist of swirls upon swirls, like the waves on the surface of the ocean. The interference pattern on the plate functions as a diffraction grating, and a diffraction grating functions as a lens. Another laser beam, shone through the plate, is brought to a focus at the same points where the original laser rays were reflected from the object. As a result, a hazy but solid image of the photographed object is projected, and you can walk around it to view all sides.

A hologram *of* a lens functions *as* a lens. This means that all the material points contained in three-dimensional space are effectively compressed into the two-dimensional plane of the hologram so that each point in the plane contains information projected from the volume. If the universe is a hologram, then everything is everything else. This brings us back to the contradiction of Aristotle's three fundamental laws of logic: that which is is that which is not.

You can demonstrate that the universal electromagnetic field is a hologram by looking through the lens of your camera. We perceive the image cast by a lens as two-dimensional because we conceive of a lens only as a means of making flat pictures. But the image cast by a lens is really three-dimensional. You can prove it by moving your projection screen back and forth to reveal the successive planes of the image. It is more correct to say that the image cast by your lens is four-dimensional because it is colored. The images of live subjects also move, so your lens actually projects a five-dimensional image.

The normal camera lens receives radiation from an angle of 45°, and the transparency of glass does not exceed the bandwidth of the visible spectrum by any significant amount. But for the purposes of this demonstration, you can imagine your lens to be a pinhole lens. A pinhole receives information from an acceptance angle of practically 180° and transmits all frequencies of

radiation. (The purity of the experiment is spoiled by X-rays that pass through material without being focused by the pinhole, but the practical experiment is sufficient to prove the point of conclusions drawn to the extreme.)

Within the image cone of your lens, you have all the information about the structure of half the universe on the objective side. Light goes through a lens both ways; on the other side of the lens, there is another image cone containing the information about the other half of the universe. Furthermore, that information is not located vast distances of space away. All the information of the universe is located at the surface of your lens, practically at the instant the image is cast. That is an awesome amount of information to be packed into such a small volume.

You may argue that the image contains no information about the universe behind any opaque objects along the line of sight, remembering that fully half the universe is obscured by the Earth we stand on. But material objects are opaque only because they transform waves from one frequency to another and shift phases. Transformation is a reversible process. In the radiation coming from every object we can see, there is occulted information of every object behind it.

Now move your lens from one place to another. You see that no matter where your lens is placed, it always receives all the information in the visible universe. A structure that contains all its information in all of its parts is a hologram. The universe is a cosmic hologram extending through at least six dimensions of space. Q.E.D.

There is a much simpler proof that the universal electromagnetic field is a hologram. The image transmitted through your lens at f/16 is the same as the image transmitted at f/2. Although f/16 is 1/64th of the area of the lens surface, that part has all the information contained in the 63 other parts. The electromagnetic field is a hologram.

In a hologram, image information is defined by phase. The wave interference pattern is a phase phenomenon. In the latest state of the art, engineers are superimposing several images onto the same hologram. Each image is formed by phase patterns and each image is separated from all the other images by frequency. A multiplexed hologram like this is a projection of several volumes onto a single plane. A multiplexed hologram, therefore, is four dimensions of space compressed into a plane.

A multiplexed hologram is an analog of the way past and future events in alternative and parallel realities coexist with our present reality. If the images of a multiplexed hologram are projected in rapid succession by a laser

beam tuned to change frequency progressively at the same rate that the frequency of reality is transformed by passage through real space-time, the multiplexed hologram will project a stereo moving picture.[3]

By popular convention, mapping and navigation is plotted on orthogonal grids, sets of coordinated lines at right-angles to each other. Actually, mapping in the field is measured by angles of sightings. Plotting of points-events-locations in a six-dimensional hologram is also done by angular coordinates, so hyperspacial geometry is not different from established mapping practices.

When working from a single point of observation that precludes triangulation, a mapper establishes a horizontal plane and a vertical plane from his plumb line. By modern convention, the horizontal plane is oriented to the North Pole of the Earth, and the angles of horizontal view are divided into 360° of azimuth, counting clockwise; the vertical plane is divided into 360° of altitude, counting upward from north on the horizon. Relative to the point of observation, the direction to any other point in space can be located by measuring so many degrees of azimuth and so many degrees of altitude to plot the line of sight. Since laser ranging has come into mapping, the length of the line of sight is established by a third angular coordinate to define a specific location in a volume of space.

A laser beam is defined by a single wavelength. When a laser beam is reflected from an object to measure its distance as a function of the time the beam takes to span the distance between the observer and the object, that span of space is also measured by an equivalent number of successive wave lengths. Each wave length is generated by 360° of phase rotation of that laser wavelength. By multiplying the number of laser waves spanning the distance (from the observer to the object being located) by 360°, a third phase-angular coordinate is added to azimuth and altitude; azimuth and altitude are also phase-angles of view.

To locate the position of an event in time, a fourth angular coordinate is needed to plot the line of sight through six dimensions of the universal hologram. As the beam of a laser ranger extends through space, the velocity of

[3]A widely distributed commercial hologram is made by photographing the live action of a girl blowing a kiss to the observer on a continuously moving strip of film. When the film is developed out to produce a hologram, it is rolled to form a cylinder. Each angle of view around the cylinder reveals a successive instant of the moving picture. As the observer moves around the hologram at the same rate as the film moved during its exposure, he sees a solid image of the girl in motion. In this hologram, the phase of the viewing angle is added onto the phase definition of the image.

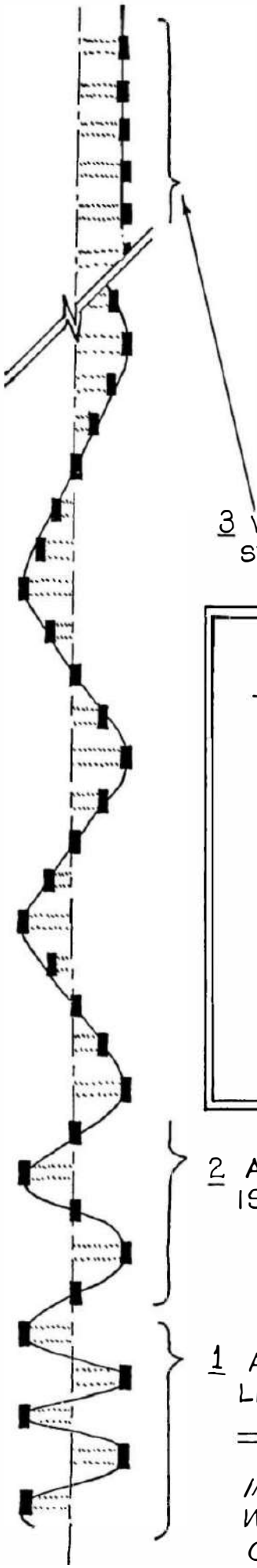
its light is accelerated, the changing wavelength is a function of distance, and distance is a function of travel-time. The acceleration of the velocity of light over cosmic distances of space-time is manifest as the Red Shift and is explained fully in the following chapter on the Unified Field geometry. Einstein explained the Red Shift by his Special Theory of Relativity, based on the constant velocity of light. Unified Field geometry explains the Red Shift much more simply and comprehensively by basing calculations on an acceleration of light over vast distances through the universal hologram.

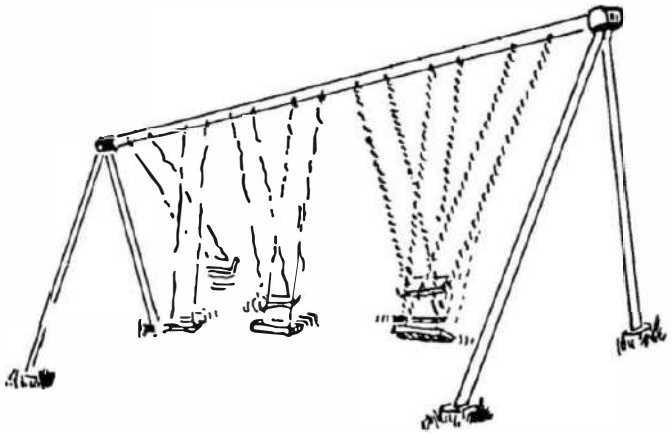
A simple model will illustrate that wave velocity accelerates over distance, and wave velocity *must* accelerate over distance in a field consisting of random particles.

Everyone has seen a line of swings in a playground. Although the ropes suspending all the swings are practically the same length, it is practically infeasible to cut them all *exactly* the same length. As a result, each swing oscillates at a slightly different period, representing random wave/particles. Because each swing oscillates at a slightly different period and each possesses a slightly different velocity, everyone has seen adjacent swings oscillate in unison for a brief time and then separate to oscillate out of phase with each other, all in a regular cycle constituting the harmonic beat of the individual swings.

Now visualize a line of swings extending indefinitely. Then, visualize each swing exactly 180° out of phase with the one next to it on both sides. In this case of maximum disorder, successive swings represent successive extremes of phase amplitude, plotting a wave of minimal length. This wave has zero velocity along the line of swings. Because the period of each swing is random, maximum disorder is gradually transformed as the swings progress toward swinging together. At first, you will see one swing at the extreme wave amplitude, the next one on the middle, the third at the opposite extreme, and the fourth in the middle. Then, you will see one swing at the extreme wave amplitude, the next swing at half amplitude, the third in the middle, the fourth at half the opposite extreme and a fifth at opposite extreme. As the whole line of swings progresses toward swinging in unison from maximum disorder, the harmonic wave form plotted by the positions of the individual swings increases in wave length. Concurrently, the harmonic wave along the line of swings flows along the line of swings, and the flow velocity increases as a function of wave length. When all the swings oscillate in unison, wave velocity along the length of the line is infinite.

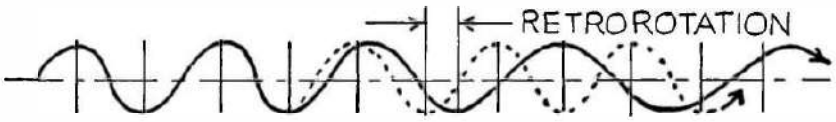
If the line of swings is long enough, there will be a span in which two swings are exactly at opposite phases with a third swing partially in phase with





A LINE OF SWINGS IS A MODEL SHOWING HOW RANDOM WAVE/PARTICLES GENERATE ACCELERATING WAVES.

3 WHEN WAVELENGTH BECOMES INFINITE ALONG A STRAIGHT LINE, WAVE VELOCITY IS ALSO INFINITE.



ACCELERATION OF WAVE FLOW RESULTS IN WAVE PEAK BEING DISPLACED PROGRESSIVELY FROM THE REGULAR PERIOD.

A DOUBLING OF WAVE VELOCITY SHIFTS THE LOCATION OF WAVE PEAK BY 90°.
DOUBLING WAVE SPEED GENERATES 1 HYPEROCTAVE.

2 AS WAVE LENGTH INCREASES, WAVE FLOW IS ACCELERATED ALONG THE LINE.

1 AT MAXIMUM DISORDER, WAVE FLOW ALONG LINE HAS ZERO VELOCITY.

IN PRACTICE, THE PURE SIMPLICITY OF RANDOM WAVE DYNAMICS IS OBSCURED BY COMPLEX WAVES.

one of them. Progressing in that direction, a fourth will move in phase with the third. At long length, you will see the wave of minimum length and zero velocity transform progressively into waves of longer lengths and higher velocity as a function of distance. A line of swings extending indefinitely is not needed to illustrate this geometry so graphically. A line of 6 swings will illustrate the phenomenon of waves accelerating in length and velocity as an equivalent function of time.

As a mapper's laser ranging beam extends through cosmic space, its wavelength gradually increases as a function of velocity accelerated over distance. The increase in wave length is equivalent to a gradual shift in the location of maximum phase amplitude in one wave relative to its adjacent waves. This shift is plotted as a retrorotation of wave phase superimposed on the regular wave. When the accumulation of successive retrorotations amounts to a shift of 90°, the length of the original laser ranging wave is doubled along with a doubling of its velocity.[4]

While a wave is extended gradually to double its length, it passes through every possible wavelength in an octave. Every possible wavelength in an octave is equivalent to every possible phase relationship. Since it has been proven that the span of space over one dimension is defined by every possible phase relationship, it follows that 90° of phase shift is equivalent to one dimension of space-time in the six dimensions of the universal hologram. I propose, therefore, that the shift of wave phase generated by accelerated velocity be termed a hyperangle and measured by hyperdegrees. The hyperdegree will be designated by the infinity symbol (∞) to distinguish it from other angles that are not opened by acceleration of velocity over space-time. Since one dimension comprises everything that can be contained within a space of that dimension, we can wonder whether the infinity symbol did not originate from an ancient intuitive sense of hyperspace.

At a distance greater than 90^{∞}, the laser ranging beam passes beyond the third dimension of the present reality. Therefore, the territories beyond 90^{∞} must extend into the fourth dimension where the parallel realities comprising the past and future of our present reality are found.

On the third angular measurement defining the length of the line of sight, the fourth measurement of the superimposed hyperangle locates the position of the event in time, past or future.

[4]Moiré patterns and the stroboscopic effect that causes wheels to appear to revolve backwards in movies provide mathematically precise calculations of acceleration through hyperangles for acute observers.

Whether the line of sight extends into the past or future depends on the harmonic scale represented by the laser ranging beam. By arbitrary convention, evolution is conceived as growth toward increasing complexity with unity. Therefore, the flow of time toward the future is defined as increasing the compounding of harmonic waves to generate successively larger scales; conversely, the flow of time toward the past is defined by the progressive breakup of complex harmonics into simpler elements. As an illustration of this convention, we regard the progressive growth of atoms into crystals and crystals into living organisms of increasingly defined complexity as positive evolution. Therefore, the breakdown of living creatures into simpler chemicals and the separation of molecules into atoms must be regarded as reversing evolution; reversing evolution is equivalent to reversing the flow of time. Time flows in all directions all around us; only our anthropocentricism makes us believe that Absolute Time flows only from past to future.

As a laser ranging wave is progressively compounded by harmonic integrations into larger scales, its velocity increases. Conversely, as it breaks up by progressive discords into its elementary waves on lower scales, its velocity decreases. Accelerated wave velocity can be designated by a plus sign added to the hyperangle to indicate that the line of sight is directed into the future. A minus sign on the hyperangle will then mean that the mapper is sighting into the past.

A thoroughly detailed plotting of the six-dimensional, hyperspacial, universal hologram can become complicated enough with various supplementary equations to satisfy (and confuse) the most highly trained mathematicians. But now you have the basic outline for navigating the higher dimensions of space and time beyond the third dimension.

These directions for plotting a course through hyperspace are merely an extrapolation of the geometry revealed through a camera's lens. You notice that although your lens projects information about the entire universe no matter where the lens is located, the projected image is different in each location. Each location, each perspective, reveals a different viewing angle of the universe. Each viewing angle reveals a different "face" or "facet" or "phase" of the universe; the terms are synonymous. The differences in the relative sizes and positions of images photographed from different perspectives can be accounted for by the difference in phase angle.

The coordinates of altitude, azimuth, and distance are convenient for practical purposes, but not absolutely necessary. Each successive dimension of space is generated by a continuously accelerated point. Therefore, if the

line of sight is continued long enough, it will eventually pass through every event in hyperspace. Every event, no matter what direction it appears to be when viewed by tridimensional creatures in tridimensional space, can be located by the hyperangular distance alone. In other words, *all* measurements can be reduced to the single dimension of phase angle.

Hyperangular distances refer equivocally to both space and time. The rotation of phase over space corresponds to the intuitive conception of time. When Kronus was recognized in myth as the overlord who orders the universe, the poet understood that hyperspace is defined by hyperangular coordinates manifest by the phase relationships of universal vibrations.

In ancient times, poets were also musicians, and all of this geometry can be deduced by studying musical instruments. Not only could Relativity and Quantum Physics have been conceived by ancient philosophers studying music, but the geometry you are reading now was also formulated the same way. Your everyday world is your real university.

This geometry verifies the view of Quantum Physics that there is not merely a single time stream flowing constantly in one direction, from past to future, but an infinite number of time streams flowing with all velocities. A person who grows faster, learns faster, or does more in less time is on another time stream, relative to people who take longer. People who do different things are on different time streams. The concept of alternative pasts and futures for each person strikes the man in the street as incomprehensible. But the mystery is created by the proposition being presented from the unfamiliar point of view calculated by highest mathematics. When alternative realities and probabilities are explained in terms of common experience, the bafflement is reduced to common sense.

It is a truism to state that the events you experience in your life depend on where you are. If you were some place else, the things that happen to you would be quite different. Once you see this self-evident truth, it follows that each location must come fully equipped with its unique past and future. The location you occupy now is but one of all the possible locations you could be occupying if you chose to be in a different place. All the locations you could occupy, but don't, represent probable realities with probable pasts and probable futures.

What do you suppose is happening in all those locations that you could be occupying if you were not reading this book where you are seated now? You look around you, see all the empty space where you could be if you weren't where you are now, and naively answer, "Nothing." But in fact, in all those other locations you are doing all the things you would be doing if you

were there instead of here. The space you are not occupying is not empty; it is filled with the vibrations of the universal hologram. You can't see all your alterntive selves pursuing alternative lives in alternative locations, constituting alternative realities, simply because the phase of the vibrations in those places are more than 90^{∞} from the material reality in which you exist at this present moment—out of sight.

In the next chapter, you will learn that waves farther than 90^{∞} from the material reality defining the present instant constitutes a universal mind that you share. In other words, past, future, and alternative realities exist in the present to be perceived as mental images instead of material bodies and electromagnetic images.

As you evolve from the amoeba to the philosopher and grow from the child to the adult, the dimensions of space-time comprehended by your mind expand correspondingly. As a child, you cannot perceive any reality in any direction from the immediate present material reality. Your behavior, in fact, is not too difficult to calculate in terms of Classical Mechanics: mindless response to collisions. The psychology of pure behaviorism is based on this simplistic mechanistic response of the organism to stimulation. But as your mind evolves to higher dimensions of space, time, and consciousness, you eventually attain a faculty capable of remembering the past and foreseeing future consequences. You can say to yourself, "If I stay here, certain things will probably happen to me. If I move there, certain other things will probably happen to me. And over there, what will happen is quite different again." Then you move or stay put and take your chances. Each of these choices represent a probable future; for every probable future, there is a probable past and present. As you can see, you experience probable pasts and futures in alternative realities as mental physics instead of the material physics that creates the present reality.

Each instant in each possible location leads off in all directions to alternative futures in alternative realities. And each instant in the alternative lives leads off in all directions to other alternatives. For all practical purposes, alternative lives of low probability can be disregarded, but much can be learned by studying alternative lives of high probability. Even these lives of high probability are so prolific that Jane Roberts's Seth described the world lines of alternative realities as tangled together like a vat of spaghetti.

How do you learn from your alternative lives? Well, you sit down and think about what would happen if you do this instead of that. If your mind can comprehend enough probabilities from alternative realities, thinking out the consequences of probable actions produces an effect on your mind and the

molecular structure of your body that is equivalent to actually going through the real experience, although the effect is diluted. For example, if you have an impulse to drive through a red light, your mind takes a trip along the world line of an alternative future reality in which you actually go through the light. Your mind has this experience faster than you can become conscious of it, but if your mind encounters a collision in that alternative reality, your body will register minute traumata. Your decision not to run the light may be accompanied by shock, sweat, and tremor as you realize what could have happened to you if you chose the alternative future. In this way, crosstalk with alternative lives produces a material effect on your present body.

Each time you choose one of your alternative realities to live in as your present material reality, an alternative past comes along with the territory. Suppose you bear a lesion from some past injury in your present life. If you choose a different course of action from the one that produced your lesions, your traumata will heal and your material health will progress to resemble a person's whose past did not include the injuries you sustained. In effect, your past has been changed.

You will object that your past has not been changed, you did sustain injuries, and healing does not alter the fact. This brings us to a higher perspective on your true nature. You see, your present material body is only one three-dimensional cross-section of a six-dimensional entity extending throughout hyperspace that constitutes your entire physical body. Within your present material body, you carry traces of all the events that have happened to you in all probable past lives, all present alternative lives, and all probable future lives. The experiences you have in this present reality amplify the traces that resonate with this reality. Wounds heal, and traumata are forgotten when you change the direction of your world line to follow a course in an alternative reality where those traces do not resonate. Without resonant reinforcement, those traces subside as an image disappears from a holograph when the projecting frequency is changed.

As strange as this geometry sounds when first presented, we have empirical evidence that each of us do live alternative lives, and crosstalk links all our probable bodies into one hyperspacial entity. Some physicians and psychiatrists claim to heal patients by bringing their alternative past and future lives into consciousness by means of hypnosis. Upon learning how events in alternative lives are affecting their bodies in this life, patients are able to make corrections in the alternative life, corrections that are not feasible for their alternative selves to make in their respective alternative realities. Once the

hyperspacial problem is solved, the present self and all the other probable selves involved in the crosstalk are able to resume their normal lives.

The 90^{∞} angle of rotation through hyperspace defining one dimension from another is more than a mere mathematical fiction for the convenience of calculation. The calculation continues to prove that the hyperrotation is a real rotation of velocity. After an event travels 90^{∞} from the observer, it disappears into the virtual state of the quantum field beyond the event horizon defining this material reality. The virtual state of the quantum field is a mental space where events exist as pure ideas relative to our present material bodies.

After a rotation of 360^{∞}, an event goes all around the hypercircumference of the universe and reappears as a material body in this reality at the present moment. For example, the six-dimensional entity that is manifest to us as a proton in one of its cross-sections evolves through time for a distance of 360^{∞} to intersect this world line again at the same place to reveal a larger cross-section in the form of a molecule. The molecule recurs as a crystal, and the crystal continues to extend through hyperspace until it comes back as an entire planet. The molecule, therefore, is the future form of the atom, the crystal is the future form of the molecule, and the planet is the future form of the very same continuous six-dimensional entity comprising them all. Conversely, the crystal is the past form of the planet, and so on. You see, past, present, and future forms exist in this reality at the same time in the same place. Your great-grandchildren already exist as a trace in the ova of your newborn daughter. All the eggs that will mature in a woman during the course of her fertile life exist in her ovaries at her birth; therefore, the traces of all men must exist in the germ cell in a continuous line from the dawn of biology on this planet until all life ceases.

Communication between your past and future selves through hyperspacial crosstalk is recognized in our culture by assigning different scales of maturity to contemporary behavior. When you behave in a childish manner, you are assigned a child's social status and are often called by a childhood name. Concurrently, the child in you resonates to amplify childhood feelings, desires, and memories. On the other hand, when you behave with an outlook exceeding the perspective of your individual self, such as in the management of a corporation or some act of self-sacrifice to secure social survival, you are accorded a status equal to the scale of society and respected by an honorific title.

The social body is the material form taken by your hyperspacial entity 360^{∞} from your individual body. When you act as an agent of society for the

benefit of your social body, it is your future self acting through your present material body. Hunches about the future are also produced by crosstalk through hyperspace with an alternative future self.

Prophets and other mystics have developed a conscious faculty for crosstalk with past, present, alternative, and future selves. Fortune-telling has acquired a bad rating at the Better Business Bureau because few mystics have enough mathematical sophistication to realize that their visions are not of one world line but arise from crosstalk with any number of probable futures and alternative realities. Fewer still are believers in fortune telling with the sophistication to understand what mathematical probabilities mean to each person's world line. Truth in advertising requires seers to state plainly on the package that their prophecies have no more than a certain probability of becoming realized in the consumer's time stream, like a weather report promising no more than a percentage chance of sunshine or rain. But if seers labeled their prophecies with the probability factor, they would not be mystics any longer; they would be actuaries. Actuarial science is one of the most precise means of forecasting the future within the limits of its scale, but statistics lack the mystique of the crystal ball; the unsophisticated public simply won't buy it.

A fundamental concept of the modern mechanistic era is the belief that all events are the effects of past causes. Hyperspacial geometry proves that all events in the present are effects of correlative and future causes as well as past causes. We are not only progressing from a fixed past; we are also progressing toward a fixed future—as much as either probability can be fixed.

Historical determinism is so self-evident to us that anyone who cannot accept it without question will have no trouble receiving a certification from the psychiatrist of his choice. No one today can believe that the modern concept of mechanistic determinism is novel and revolutionary in the history of philosophy. Nobody today can believe that our grandfathers were persecuted and ridiculed for pointing out that present effects are the results of past causes. But until very recently, it was self-evident to everyone in our culture that all present effects are the result of future causes, the One Cause being God's Will. It was perfectly logical to Doctor Pangloss that noses were created so that we can wear spectacles. Your Bible will give you passage after passage justifying present events by future necessities. The Israelites could not believe that enemies attacked them because nomads find war more profitable than toil (past cause produces present effect). They believed that God sent enemies to teach His Chosen Children the vanity of possessions in order that they will be

worthy of their Promised Land (future cause produces present effect). It is amazing how much you miss when you read ancient scripture from modern perspective; consider how much is lost in translation when modern translators are unable to comprehend past concepts.

The historical flip from belief in future determinism to belief in past determinism is a swing from one extreme to the other without realizing that events are determined over the entire course of the swing, not merely by the two extremes. Events in our reality have many simultaneous causes reaching from the past, correlative presents, and futures.

From each point of view, every event in this real universe is revealed to each other at a unique phase angle, according to the location of each observer in space-time. All events in the past and future are related to each observer by a unique phase-distance, defined by hyperangle. Every form is fashioned by phase, just as every contour in a holograph is phase-defined. Every movement plots a unique phase formula. Every structure is maintained in its integrity by its specific phase distance from every other structure in the universe—past, present, and future—simultaneously.

Every injury, death, and destruction in the universe affects each one of us directly, over time and space, in all directions. Each birth, construction, and transformation affects each of us. Each of us is a hologram comprising the entire universe within our bodies, as Blake saw the universe in a grain of sand. Each person belongs to the universe just as our atoms belong to our individual bodies. At the ultimate extension through hyperspace, all of our individual six-dimensional entities manifest a single, harmonically integrated cross-section that is coextensive with and identical to the universe. In the next chapter, you will learn how to construct a mechanical model illustrating how phase determines all events within the empire of Kronus.

The concept that the universe informs each person is not a novel heresy. This truth of the most advanced theoretical physics dominated high philosophy during the Middle Ages and it will dominate popular philosophy during the Aquarian Age. Without holistic concepts, there won't be an Aquarian Age. There will be nothing more than superannuated Fishermen who haven't discovered the Water of Life. This truth, kept alive in the Eternal Invisible College (including Jesus[5] among its historical alumni) filters out to educate the public from age to age, seeming to be lost during the ages between enlightened eras.

[5]The esoteric Essenes were a chapter of the Invisible College in His day.

5

A SCALE MODEL OF THE UNIVERSE

All scientific authorities will tell you this is impossible; so now you can build a six-dimensional model to show they are wrong

The money you paid for this book establishes a contract between us. Where I live, an exceptionally enlightened government orders vendors to deliver fair value for consideration, regardless of any other implied or expressed agreement. If you are reading for entertainment value, the onus is on you to determine that this literature satisfies your taste before you pay for it. But if you bought this book to learn how the universe unfolds as it should, I have an obligation to assure you that I am telling you like it is.

I am telling you like motherhood swings and apple pie is laced with artificial preservatives. In the Yakima Valley, these are fighting words. How do you know I am telling you the truth?

Most writers cite published authorities, presenting an impressive bibliography as proof that their facts can be believed. But references prove only that the *writer* did not make up his facts with unrestricted literary license. How do you know that the authorities have not written webs of fantasy? To find out, you write the authorities to learn where they got their information. In reply, you will likely receive another bibliography. If you are diligent in tracking down the sources of published facts, you can amass an impressive reference library until you become recognized as an authority in your own right. But how do you know that any of your published references are true? A few

hundred years ago, libraries were full of facts about the flat Earth, all endorsed by authorities from Aristotle to the Pope. These books were studied and memorized and believed by the most respected scholars of the time—and it was all nonsense.

Instead of passing the buck farther than most critics will chase, some writers scare off doubters by claiming sufficient authority in themselves. I could tell you that I have an M.Sc. in physics, a Ph.D. in math, a D.D. in fiddling, and Kappa Eta Upsilon from the College of Kingdom Comm. Therefore, I am infallible. As long as I can intimidate enough readers by the caliber of my academic artillery, I can make a comfortable living as a respectable hold-up artist without ever firing a shot to prove that my gun is loaded—never mind hitting the target.

Galileo said that the planets revolve around the Sun. Now, the planets don't revolve around the Sun just because Galileo said so. The planets don't revolve around the Sun just because Copernicus was an incontrovertible authority, or because the Pope decreed that the cosmos is heliocentric. You know that planets revolve around the Sun because with a small telescope you can observe satellites orbiting their primaries—as Galileo did.

I give you no bibliography. I claim no authority. I mention other writers only to show I am not alone in left field. But we could all be mistaken—as reactionary critics believe. You can prove my statements only by looking at the evidence for yourself.

Now, I cannot force you to examine my evidence any more than Galileo could force his Inquisitors to look through his telescope, or any more than Freud could force his colleagues to listen to mental patients, or Velikovsky could force his persecutors to prove his documentation, or Hoffer could force medical scientists to repeat his experiments, or Einstein could force Nazi scientists to check his calculations, or Billy Mitchell could force the U.S. Navy tacticians to test his theory of aerial warfare at sea. But if you choose to deny my data, you forfeit your right to complain that you aren't getting your money's worth of truth.

The evidence of my truth is a scale model of the universal, hyperspacial hologram that you can construct as readily as a Galilean telescope. Study the way it works, and see for yourself whether I am telling you like it is. Then, if you don't put me down as a freak, you will have to come to terms with what your eyes see.

Conception predetermines perception. We see mainly what we expect to see. It is only in a state of Zen meditation where preconceptions are voided that there is perception of the real thing. This is why no one can make sense of

their initial look through a telescope or a microscope. It takes time and study to learn to see what one is looking at.[1]

Different people see different things in a model universe, depending upon their preconceptions and the clarity of their vision. The several perceptions may be equally true or equally mistaken, or unequally true and unequally mistaken. If your initial insights are less comprehensive than the theory woven through this book, then your perceptions are probably less truthful than mine, though not always so. A wise critic, before crossing pens, will reserve his objections until he is quite sure that his view is at least as comprehensive as the one he disagrees with. When you see what I see, our felicity at mutual agreement does not mean that this theory is incontrovertibly true. No single perspective yields the whole truth, and the march of science is not going to stop at the publication of this book. It is driving me and my publisher frantic trying to keep up with progress even during the time it takes to put this down on paper. This is what journalists call "a fast-breaking story," and the world's most creative mathematicians are competing for the scoop.

The koan teaches that perception is transformed by study. I do not now see the model universe the way I saw it five years ago. Aspects I could not discern then and inferences I then believed self-evident proved more subtle than my previous conceptions could comprehend. I related how my insight deepened during my study of the Masters of the Oriental martial arts. After I discovered the secret of timing, an Eighth Degree Black Belt could have told me that I still had a lot to learn. Even though he lacked the semantic precision to explain his competence, he would know just by looking at me that I had not yet seen the Light, because he had. If he tried to tell me what I would learn in these studies, I wouldn't have believed him; it would have seemed fantastic beyond belief. Some of you, now, are more perceptive than I am. If you see my mistakes, tell me about them.

But before you throw out my baby with the wash as pedants are wont to do as soon as they discover a misplaced comma, consider the consequences. Einstein was quite confused about the definition of time, but his mistakes did not make the slightest difference in the manufacturing of the atomic bomb. It is hoped that this geometry will entertain you and stimulate your curiosity to know more about the Invisible College, but the practical fruit of this geometry is the engineering of *real* flying saucers. If the publication of this book speeds the development of antigravity engines and hastens the colonization of the

[1]A baby's work is learning to see what he is looking at.

planets within *your* lifetime, all my mistakes will be worth it. Remember when all authorities believed it impossible for men to leave the Earth? But less than ten years after people *believed* it was possible to reach the Moon, men walked on the Sea of Tranquility.

All I can assure you is that the statements in this book are verifiable in the model. To the best of my understanding, the operation and the structure of the model corresponds to the way the universe unfolds. There is much more to be discovered in this model, and some of these discoveries will support theories of equal or superior truth. If you discover them before I do, I'd like to hear about it. On the basis of the demonstrable facts, you are assured that my inferences of religious truths are not unfounded mystic revelations.

After studying the model sufficiently to make a fairly informed judgment, some of you will tell me that I use technical terms in a manner exceeding the strict definition taught in engineering school. But I am not all wrong simply because I exceed your definitions. Extending definitions from the authorized limits is what scientific progress is all about. If Euclid's definitions were not exceeded, aerial navigation would be impeded without spherical geometry. Every scientific advance imposes the necessity of choosing between the total annihilation of previous definitions and replacing all terms with new ones or else expanding the familiar terms to include new insights. Both alternatives produce confusion for a generation, but there is no third way around it known to me. In this case, I have chosen to expand the old terms and deal with conservative critics as they arise.

All the preposterous propositions presented in this book have been proven, or are being proven, by established science. The terms may not be familiar to you if you are not current with scientific progress outside of the university, but they are so well established in the Invisible College that they are already entering common speech without people having any idea of what they really mean. About time you learned, isn't it?

More information is concentrated in the next few chapters than you will read in heavy tomes on Relativity, and it makes better sense! No one can assimilate so many facts in a few minutes, especially when the facts contradict everything you now know and believe. This chapter contains the instructions for a kit that you are expected to assemble and operate. It is a guide for your inspection of the working model. Don't expect to understand everything immediately. (You don't expect to understand a symphony the first time you listen to it, do you?) Read it without sweat and let it ferment in your unconscious mind. Gradually, you will find yourself seeing things in your

daily runarounds that will recall this book. Then you can read it again, with a fresh understanding of what it means to *you*.

Once you understand the principles of the universal hologram, you will begin to recognize multidimensional holographic structures in many things around you. Ocean waves, for example, are a natural analog of the universal hologram. Clouds in the sky are not coherent forms blown by the wind, as generally believed; clouds move and change their shape by transforming themselves into water vapor at their trailing edges, analogous to the dynamics of a standing wave. Wherever you see moiré patterns, diffraction gratings, shear waves, and so on, you can study the universal hologram unfolding as it should. Music is a perfect scale model of the universe; you can always study music.

The model universe gives different strokes to different folks. Readers with technical training will find it more fascinating than moiré patterns and Rubik's damned Cube, as they tease one mathematical formula after another from its operations. Nontechnical readers will find the model universe a tangible proof for their belief in spirits, PSI powers, and God. People who scoff at PSI powers and religious faith know just enough science to be able to prove the spiritual realities impossible, but they do not know enough science to prove that spiritual forces are real.

Find a flat sheet of metal or vibrant plastic—a drum head will do. Sprinkle a powder on its top surface—sand or salt is ideal. Now tap the surface rapidly or strum the edge with a bow. The best method is to touch the sheet with a vibrating tuning fork. The sonic waves that coincide harmonically with the dimensions of the particles of powder will cause the particles to vibrate sympathetically, bouncing up and down. The resonating vibrations are called traveling waves, and they carry the particles with them, making the wave structure of the field of sound visible. This Plate Flutter model serves as a scale model of the universe.

Radiant sound waves travel 1,100 feet per second in sea level air (faster in solids), so their movement is much too fleet for your eye to follow on a small plate. The patterns revealed by the powder are standing waves, piled like wind rows where traveling waves come to rest.

Radiant waves can be understood by dropping a stone in water. The concentric waves flowing away from the point of impact are a scale model of radiant waves. But true radiant waves in water are sound waves. The waves you see spreading from a stone dropped into water are actually traveling waves, but they have the same structure as radiant waves on a magnified scale so that you can see them.

A cup of coffee set on a vibrating table (such as you will find on board a ship or Amtrak's dining car) sends radiant waves from the cup over the surface of the liquid. Because the cup is a circular enclosure of the liquid, the radiant waves condense to the center, instead of expanding outward. After disappearing into the central point, the radiant waves expand outward from the center until they are reflected from the wall of the cup, and the cycle is then repeated. Where centripetal waves pass through centrifugal waves, phase aligned so that both waves go up and down at the same place at the same time, the wave pattern does not move, so the phenomenon is called "standing waves." You can see the concentric standing waves in your cup, so you know they really happen. Everyone has seen standing waves in their cups, but paid no attention because they make no difference to the price of coffee in Manhattan until they slop over into the saucer.

When radiant waves moving in opposite directions are not phase-congruent during their interpenetration, the standing waves do not remain in one location, but travel, so they can be called traveling waves. The velocity of traveling waves is the velocity of the radiant waves divided by the amount of phase dislocation at each wave length. Waves on the surface of the ocean are traveling waves.

Notice that large waves have smaller waves upon their backs to ride 'em, and small waves have smaller wavelets, and so on, *ad infinitum*. Traveling waves on the surface of water are all compound harmonic waves representing harmonic scales.

The Plate Flutter model demonstrates the relationship between radiant-wave energy and solid-material particles because standing waves manifest the physical properties of material particles, such as tridimensional volume and inertia.

A standing wave is generated when a pair of radiant waves flowing in opposite directions interpenetrate each other. In tridimensional space, a solid standing wave is formed by three pairs of opposing radiant waves meeting at right angles on all axes. The three coordinate axes of a solid standing wave are the "Cross of Matter" that you see symbolized in astrological signs and represented by the Crucifix in Christian iconology.

When the phases of the generating waves are not congruent in space and time, a standing wave travels along the axes that are out of phase. But a standing wave will also travel when the phase alignment is shifted laterally by the flow axis intersecting at an angle other than 180°. In this case, the standing wave travels to the side on an axis of flow that bisects the angle formed by the intersection of the radiant waves. As the two radiant axes rotate to open or

close the angle between them, the velocity of the traveling wave is a function of the angle. This kind of traveling wave is called a shear wave.

A traveling wave cannot exceed radiant velocity because there is no phase overlap at radiant velocity. The traveling wave becomes a radiant wave at radiant velocity. But the velocity of a shear wave can reach infinity. A shear wave is annihilated on the plane of its generation when it reaches infinite velocity. In theory, an ideal shear wave can convey a signal at infinite velocity, which overcomes the equally theoretical limit imposed by Einstein. In practice, however, you will see that hyperlight velocities are complicated operations.

An ideal standing wave does not vibrate. All vibrations in a standing wave are produced by residual, random phase dislocation. The frequency of a standing wave's vibration is a function of phase dislocation, being infinitely high where the wave is ideally static and zero when radiant velocity is reached. Between the two poles of standing phase and radiant phase, the traveling wave's frequency is a function of its velocity. The retarding of a traveling wave's frequency as it acquires velocity is equivalent to the slowing down of its proper time stream until time stops when the traveling wave reaches radiant velocity.

In abstract mathematical statements, velocity is an inverse function of time; therefore, velocity must be infinite when time stops. Our real, tangible model shows that velocity is not infinite when time stops, but radiant.

Because physicists do not know what Einstein's equations refer to in reality, they confuse radiant velocity with infinity and create the insoluble antinomy that has blocked scientific progress for nearly a century.

Momentum is a function of velocity, too. So when time slows to zero, momentum must also become infinite. But we have seen that velocity is not necessarily infinite when time stops. Therefore, momentum is not infinite at the speed of light, but mc^2. Now you can understand why some scientists feared the hydrogen bomb would release infinite energy in a chain reaction that would annihilate the entire world.

Along the axis of wave flow, the phase distance between a radiant wave and a standing wave is 90° of displacement. You learned in the last chapter that displacement is a function of accelerated wave velocity, and the measurement is designated by hyperdegrees. Between a standing wave and a radiant wave, the traveling wave accelerates from zero to radiant velocity. So you can observe extension into hyperspace on this model.

90^{∞} is the distance between the loop of the radiant wave and its node. The loop of a wave is the middle where phase amplitude is maximum; the

node is the crossover point where amplitude of one phase is transformed into amplitude of the opposite phase. The loop of a square Plate Flutter model is located along the edges when the edges are strummed; the node is located along the diagonals. Except for the edges and the nodes, the whole field of vibration consists of traveling waves. As you understand that the velocity of the traveling waves is a function of the hyperangle, you realize that space, time, mass, acceleration, velocity, frequency, and all other functions of energy can be expressed by a single measurement—the hyperangle. This is the model that substantiates the Unified Field Equations calculated in the next chapter.

Wave amplitude and traveling wave velocity are maximum at the wave loop. At the node, wave amplitude and traveling wave velocity are zero. The node is the still point in the dance of life. When traveling wave velocity is zero, its wave frequency is infinite. When wave frequency is infinite, its time stream has infinite velocity. When a standing wave structure is at the still point, therefore, time outside the still point is relatively static. This is the mechanical model, and the mathematical equations that prove the still point of the dance are not an illusion of the mystic Masters and Jackie Stewart; the still point is a real physical phenomenon that can be constructed and proven in the laboratory.

The loop is established by the maximum extension of a wave's energy. The node is 90^{∞} from the loop. At each right-angle of rotation, space expands/contracts into another dimension. Therefore, the loop represents the fullest development of space-time at the energy level defined by its tridimensional structure. The node is the point where energy crosses over from one dimension to another. Now you know where the depot is located when you want to travel from here to the next dimension.

There really are windows into higher/lower dimensions of space-time. And you really can pass through the windows at the nodal points of the dance of life. To find a window through hyperspace, you must learn how to become absolutely still. At the still point, you become superconducting, and you then pass through the eye of the needle into Heaven, just as all the mystic Masters describe.

What's on the other side of the window? Well, moiré patterns show that waves dissolve and generate overtones and undertones at 90^{∞} intervals. When you pass through the still point, you therefore enter another reality defined by waves of another length, another frequency, and another velocity on another harmonic scale. You enter another time stream. While your consciousness is in the other time stream, you are living in the interval between the instants of our reality. You have the "wild pendulum" by its nodes.

While in the alternative reality, you can do things between two instants of our reality. As you know, the changes occurring in our reality between two successive instants depend upon what happens in alternative realities during the interval. While you are in the other reality, you can produce changes in this reality that appear here faster than light. This is what miracles are all about. This is what happens in vital emergencies when victims experience time slowing down to zero in this reality while they literally dance on air to perform life-saving actions before time starts to move again in this reality. People who die in this reality can make changes in other realities so that they can come back to life in the next instant of this reality. People at the point of death in this reality can also choose to switch their ego to another reality and continue their lives there.

Blockhead scientists refuse to believe that people can play between the notes of our reality. They don't know our reality has notes. But they don't know what Einstein's equations mean, either. Once you have looked through the window into another reality, you believe it.

When a standing wave is accelerated to radiant velocity, it is transformed from a three-dimensional, solid structure into a four-dimensional wave structure. Paradoxically, a four-dimensional structure manifests two dimensions in the volume of our reality. A material particle is transformed into a photon at radiant velocity. A packet of photons is a four-dimensional structure, but on our instruments it registers as a plane particle.

You will be able to understand the paradox of the lost dimensions by performing a simple operation. Draw a circle on a sheet of paper. Cut it out with an X-acto knife. Rotate the circle around an axis on the plane of its matrix. By rotating the circle, you sweep a hemisphere of volume, which is a tridimensional space. But as soon as the circle has rotated 90°, it intersects the plane of its matrix along a line. So, you see, although the circle has expanded by rotation into the third dimension, it has apparently lost one dimension to become a line, as far as can be detected on the plane of its matrix.

When a tridimensional material particle is accelerated to the velocity of light, it is multiplied into as many more particles as there are planes in its volume; each of the particle's planes expands into a volume. As you know, for more than one volume to exist in the same space, the encompassing space must have at least four dimensions. Therefore, accelerating a tridimensional particle expands its space into the fourth dimension. But as a material particle explodes into tridimensional particles at the speed of light, only one plane of each photon can be detected by our instruments because all the other planes

are in the virtual state of the quantum field. The photon is a massive tridimensional particle in hyperspace, but in real space it is a massless, bidimensional plane particle. The undetectable planes are manifest as the energy of photons.

Only a volume can have mass. At radiant velocity, a volume becomes a plane, and a plane has no mass. Therefore, mass does not become infinite at the speed of light; mass becomes zero. The transformation of material particles into massless photons at the speed of light proves this fact empirically and incontrovertibly.

If mass decreases as a function of velocity, then acceleration will be accelerated when a constant force is applied to a mass. In other words, the faster a standing wave goes, the faster it goes. You can observe this function as you watch traveling waves dart across the surface of your model universe.

You have been studying a model of radical revolutionary importance. According to the highest scientific authorities, the Theory of Relativity is an abstract conception of pure mathematics absolutely impossible for any human intellect to visualize, much less demonstrate by a tangible model. Nevertheless, you have just constructed and observed the operations of a model demonstrating the Fitzgerald Contraction, the Lorentz Transformation, the dilation of time, the conversion of matter into energy, and *vice versa*. You have just seen the Special Theory of Relativity with all its insides opened out for your inspection. Congratulations! Now you can begin to make radical revolutionary deductions, altering the fundamental concepts of this reality.

It is impossible to detect space except by measurement with waves. Space that cannot be detected has no scientific existence. Therefore, space is defined by waves, space is created by waves, and space is identical to the waves it contains. In other words, space is not a void containing waves, space *is* the waves.

It is impossible to define a field except by its vectors. (Vectors are plotted as the velocity of each particle comprising a wave.) Therefore, a field is identical to its vectors. The vectors of a field are not detectable except as those vectors of the waves that comprise a field. Therefore, field is defined by waves, field is created by waves, and field is identical to the waves comprising it.

If space is identical to waves, and if field is identical to waves, then space is identical to field.

Waves are a manifestation of energy. All detected energy can be described as wave energy. Therefore, waves are identical to energy. Space is

identical to waves. Therefore, space is energy and energy is space. Expanding space is simply increasing energy.

Since waves define energy level and energy level defines a time stream, and a time stream defines a reality, then each wavelength is a discrete space, and each space is a discrete reality.

Empty space is filled with electromagnetic waves. Electromagnetic waves are energy. Therefore, empty space is hypersolid energy.

Professors insist it is impossible to see four-dimensional space directly. Well, how about taking a look at *five*-dimensional hyperspace? Gaze into the sky on a clear night. The star light is a four-dimensional structure. You can see the light because the radiant axis is perpendicular to your eyes. The absolute darkness of night is filled with light flowing tangentially to your line of sight. You need only move your position to see that the dark sky is, in fact, solidly filled with light on a tangent to your line of sight. The tangents represent the vectors of the virtual state of the quantum field. The virtual state is in the fifth dimension. When you are able to bring tangent radiant to a focus through your third, "spiritual" eyes, you become clairvoyant.

The universe is a hologram of random waves, just as the waves on the ocean are random. To generate a pattern of random standing-waves on a plate, the sound waves used to activate the model must be a random mixture of all frequencies; white sound is correlative to white light. A material model, however, cannot reveal the random pattern of white sound because the dimensions of the powder and the resonant parameters of the plate abstracts a defined pattern from the chaos. The same principles of tuned resonance define our reality from the universal chaos as a function of the parameters of our material senses and our fundamental concepts.

The plate's resonance can be altered by cutting its dimensions to different shapes. Different shapes produce different patterns. The pattern can be changed also by altering the frequency of the plate. Complex patterns can be generated by setting the tuning fork in different locations and by using tuning forks of different frequencies. If a chord is used, rather than a pure freqency tone, the beat notes you hear in the chord generate a continuously moving pattern of standing-waves as the harmonic undertones pass through their permutations.

If the model universe is vast enough—on a scale of acres—its major patterns will be comprised of innumerable atomic standing-waves of circular form. Standing waves function as transformers of the radiant waves passing through them; this is why a lens brings images to a focus. As a result, the

fundamental frequency broadcast by the major patterns disintegrate into white sound in the spaces between fine standing waves. A large-scale view, therefore, reveals a simple macroscopic pattern, but as the scope of view is reduced, the micropatterns become increasingly complex until they are lost in chaos. The sum of chaotic vectors generate circles. This is why the elements of our world assume circular forms as we approach the limit of resolution in both directions.

It is not by accident that our biology developed on the scale where harmonic structures are manifest with the greatest geometrical variety and complexity. To be conscious of chaos is to be unconscious of anything; to be conscious of anything is to be conscious of definition. Therefore, the greatest degree of consciousness is identical to the state of greatest definition.

Our world is the most complex on the human scale because our consciousness is focused on this scale. If we use a microscope to focus our consciousness on the molecular scale, the simple, amorphous, spherical structures within crystals are revealed to contain all the complex geometrical configurations we find on the human scale. If we had a special kind of telescope to bring the images of stars together with some means of selective focus, similarly complex geometrical relationships would be revealed in the distribution of stars and galaxies. We can infer that life must exist on all scales. Galaxies and atoms are living creatures no less than the planet Earth. There are creatures living on the surface of protons as we live on the surface of a planet, and plasmic creatures live in the atmosphere of stars as fish live in oceans.

If this proposition strikes you as preposterous, consider then whether the atoms of your body are alive or not. If your atoms are not alive, then at what point in the successive integration of atoms do dead molecules become living molecules? Life is not added to a dead body the way residents move into a new building after construction is completed. Life exists in every atom. The integration of atoms into living creatures, as we know them, merely raises atomic life to larger scales. At a certain scale, depending upon the sophistication of our concepts, the molecule is arbitrarily declared to be alive by courts of law. It is easy to declare soil dead and plants alive, but discrimination becomes exceedingly subtle and arbitrary in cases involving abortion and life support systems.

Analyzed on their own scale, the details of all energy transformations are as complex as what we perceive life to be, on our scale. Therefore, the whole universe is alive.

The model reveals that harmonic integration is the consequence of the very opposite phenomena, phase dislocation. As more order is demolished by increasing phase dislocations on one scale, more order is created on other scales. Therefore, the Law of Entropy that dominates Classical Physics and political economics is valid only on a single scale. The universe cannot run down according to the Classical laws of thermodynamics. Unlimited energy is available by tapping other scales; this is the principle inspiring research for generating energy from the quantum field.

Between the loops around the edges of a square model and the nodes along its diagonals, every possible permutation of phase alignments exists at every instant. A random field also manifests, at all times, every possible permutation of phase alignment between loops and nodes. This means that every event that has happened and every event that will happen must be happening now everywhere in the universal hologram.

Within the volume of every material structure, holographic vibrations contain information of every form that that object assumed during its evolution and every form that it will assume. Every living creature passes through the entire sequence of its holographic evolution from the instant of conception to its present material form.

All the information contained in the universe is replicated in the volume occupied by the brain. There is no limit to the amount of information a brain can comprehend. The only limit to learning is the efficiency of retrieving information from the universal hologram.

Every event of the past and future is separated from the present materialization of the body by a phase distance expressed as hyperdegrees. Hyperdegrees are convertible to degrees of wave rotation, and wave rotation is convertible into distance in real space and real time. When a material structure in a dynamic field traverses a distance in real space equivalent to the distance in hyperdegrees at the radiant velocity of its harmonic scale, future events located at those distances become materialized.

Seth tells Jane Roberts that the future/past events he sees in parallel realities are separated from our reality by a distance, but the distance is not to be understood as miles: the distance is phase shear (hyperdegrees) in hyperspace. Were Seth a mathematician, he would have told Jane Roberts that the distance between her and her other realities was measured by phase shear. Phase shear can be converted into nautical miles, but the number exceeds astronomical comprehension. Without training in advanced physics, Jane

Roberts would not understand a word of what her future self was telling her in scientific terms, so Seth, understanding this, kept his counsel and did the best he could to communicate in understandable terms.

By properly tuning standing wave patterns, it is possible to reproduce the cross-sections of simple living creatures, as can be done with Plate Flutter model. Therefore, it is only a matter of increasing complexity to reproduce the structure of highly evolved forms of life.

The pattern on the plate is merely a plane section of a volume defined by the sonic field. Therefore, when a cross-section of a living creature is generated on the plate, the rest of the creature's solid body exists in the space above and below the plate. The way the model reveals a plane section of a solid living creature illustrates the way our reality reveals a tridimensional cross-section of our hypersolid bodies extending through six dimensions.

The formula for the wave pattern defining a living creature is contained in the DNA molecule. When the DNA molecule is completely analyzed and translated into angular coordinates, it will be possible to clone living creatures to order. Genetic engineering is proceeding to this end in a pedestrian manner.

Eventually, it will be possible to create replicas of people in other locations by a technology promised in the "transporter beam" of *Star Trek.* Spirit travel and clairvoyance occur when an electromagnetic standing wave pattern comprising a mystic's mind is replicated outside his body. The physics of soul travel are explained more fully in the chapters following.

The equations describing the mutation of one biological form into another, as formulated by D'Arcy Thompson in his monumental study of morphology, *On Growth And Form,* are determined by frequency transformations as a consequence of progressive phase dislocations over time. Frequency transformation over a course of time is manifest with a concomitant transformation of harmonic scale. Not being able to perceive the continuity of the entire hyperspacial creature from our perspective in this scale, we explain molecular transformations as a growth of the body, death, and birth. But the hyperspacial entity never dies; it merely changes its aspect. Mystics who explain biological evolution in terms of reincarnation have a better understanding of the way the universe unfolds than scientists.

The Creationists and Evolutionists can be brought to the peace table on a higher dimension. If every agent that can possibly exist always exists in its field, then every creature on Earth was created at the same time that our universal field came into existence. This is tantamount to saying that God

created the living universe in six stages of refinement.[2] Evolutionary cosmology expresses the same truth in terms of a reduction of the primordial, chaotic fireball into the harmonic scales of atoms, molecules, crystals, and the emergence of conscious life. The creation of man on the eighth day refers to the expansion of animal consciousness to become aware of itself from the scale of Divine consciousness. All Creation is created complete and perfect in the primordial act of Divine genesis, but the manifestation of all Creation in material form proceeds by successive transformations of the universal field through the passage of time. So, both Fundamentalists and Evolutionists are equally right—and equally too narrow-minded to see that the other persuasion is also truthful.

Theories of biological evolution have probably circulated in the Invisible College since ancient times. The theory is a matter of historical record more than a century before Charles Darwin was credited with its publication. Evolutionary theory could not be introduced to our cultural consciousness, however, while our civilization was experiencing reality through the concept of anthropomorphic monotheism. Mechanism, the concept of uniting all phenomena by abstract law, is the natural development of monotheism, just as abstract social law is the natural evolution of government by royal command. With the irruption of time-energy into the cultural consciousness at the advent of mechanism, a mechanistic theory of evolution was needed to account for the diversity of vital forms. Otherwise, a deity would have to be retained as a constitutional monarch ruling on all life while mechanistic laws governed physics. Science is determined to be republican, so there was no room for deities, and all phenomena that could not be comprehended within mechanism beliefs were exiled into limbo.

Now we are ready to make another set of deductions that will unite mind with matter.

Intelligence can only be expressed in behavior. Therefore, behavior is identical to intelligence.

If field dynamics determines behavior, then field is identical to intelligence.

Field is identical to space; therefore, space is identical to intelligence.

Intelligence is the function of the mind; therefore, space is a mental structure, and the universe is a cosmic brain.

[2]The Six Days of Creation can be correlated to six rotations of 90^{∞}, each with a light phase and a dark phase.

The contents of a mind are inseparable from the consciousness of a mind. Therefore, space is conscious; the universe is conscious.

The structure of space is defined by frequency. Therefore, the state of consciousness is defined by frequency. Joe Kamiya founded the science of biofeedback with his experiments proving that the state of consciousness is defined by its frequency.

Since space contains reality and space is established by frequency and consciousness is defined by frequency, it follows that all realities are mental structures, and a consciousness can tune into alternative realities by a change in the tuning of its frequencies. Psychedelic drugs alter the frequencies of nervous tissue by altering electrical resistance. We have already seen that the mystic Master alters his perception and powers in this reality by altering his electrical resistance. The deductions made from the model are verified by laboratory experiments and empirical experience.

The dynamic structure of a field determines everything that happens in it. Since a field is conscious, it follows that all events occurring in a field are acts of its conscious will. This is the basis of the concept of free will.

A field cannot control or be conscious of events in other fields except by looping through higher scales. The impact of one field against another, therefore, imposes events into both fields that are out of the control of their consciousness. Impacts between fields are what Classical Physics is all about, and this is the basis of determinism.

Human behavior is both freely chosen by will and determined against the will at the same time, depending upon the fields involved. A field controls all the events within it, but none of the events outside it. In other words, big wheels do as they please, and little ones do what they must. We know this already: only philosophers can make their careers by arguing "Free Will *vs.* Determinism."

The principle of past determinism is derived from the interaction of discrete fields. The principle of future determinism by the will of God is derived from the conscious control that a larger-scale field exerts on all the events in the subfields comprising its harmonic overtones. God is identical to the ultimate, universal field.

If a field is intelligent, then a field on a higher scale is a Higher Intelligence. A Higher Intelligence is what we call God. Therefore, not only do we have One Supreme God of All That Is, but we also have an indefinite number of Gods ordered into a hierarchy of harmonically integrated scales in the universal hologram comprising All That Is.

Each child feels it is God, but children bow to the higher divinity of parents. Every person behaves as if he were God until impressed by the higher power of society. Society imposes its will on members in the name of God. Yet conscientious objectors know that society must obey a higher God that orders us through the ecology of this planet. The planets follow the Divine plan of the cosmic God. The cosmos is an idea in the mind of All That Is.

The primitives tell the truth when they say that every body, rock, tree, river, and species has an individual spirit and a common Divine spirit. The great religions tell the truth when they preach a doctrine of One God. Neither belief is the whole truth. The whole truth is a union of all partial truths.

How do you know which God is higher? How can we tell whether a social dissenter is a childish individualist or a prophet? It is not enough to learn how to bow; we must learn whom to bow to. The Lower Gods always perceive other fields as competition to be resisted in a struggle for survival. The Higher God perceives other fields as extensions of Himself—as His children, so to speak. The Lower God destroys and enslaves competition. The Higher God may chastise His children but only if no gentler force will control their willfulness. A Higher God does not harm His children, but, if necessary, He will put His children back into training pants to teach them their lessons. The Lower God punishes, the Higher God encourages and guides. The Lower God jealously loves Himself. The Higher God loves without limit. But when a High God meets another High God, the two of them act like brats. Just wait till the Highest God returns and finds His Lieutenants fighting among themselves.

Each of us is a tridimensional cross-section of a hyperspacial God. If the One God took Himself as seriously as we take ourselves, He would never have been able to create order in chaos or unite opposites. Hilarity is excited by a union of opposites. The universe is a cosmic joke for His delight. Laughter is the voice of God—not Hebrew, Greek, Latin, or Sanskrit. You will hear the voice of God when you understand His cosmic joke.[3]

A dynamic field is a continuous cycle of transformation from radiant waves to standing waves and back again. The model illustrates the mechanism of transformation of mind into matter and matter into mind, in the eternal cycle of life and death. The transformation of mind into matter is the process of God creating material reality out of His intelligence. The transformation of matter into mind is the process of returning to God when we die.

[3]I still fail to see God's humor in giving us impacted wisdom teeth, breech births, and hair too fine to do anything with.

Evolution proceeds in all directions concurrently. One stream flows up the scale toward higher dimensions of consciousness while a counterflow heads toward lower dimensions. Conventional wisdom regards evolution toward higher dimensions as holy while condemning devolution as diabolic. But the One God of All That Is swings both ways and loves all His children, sinners no less than saints. It is God's desire to see how both halves live that necessitated the creation of counterflows. The quintessence of sin is losing touch with the universe, no matter which way one is proceeding. The saint who loses touch with the One God is deeper in hell than the sinner, because the sinner usually realizes that he has lost his way. Most of us dither around on the human scale for a few dozen lifetimes before our Drunkard's Walk takes a quantum leap to another hyperoctave where we are reincarnated on a New Earth under a New Heaven.

And that is a bit of the Yin and the Yang of it.

6

THE FINE ART OF SCIENCE

How to understand science and participate in the greatest adventure of our time

A mathematical theory is not necessarily an immutable fact, given to you complete and perfect. Your job, as a critic of the scientific art, is to study the theoretical structure as you would a symphony, painting, poem, or architectural design and to criticize its efficiency for its purpose from your own experience. The general belief that science is the authorities' pontification to unquestioning believers is pernicious and thoroughly wrong. Art depends on a continuous dialogue between its authorities, its technicians, and its public for its very existence. Science would be in far better condition if professional scientists realized that the public who pays their salaries is the real creator of science, and the professional service is mainly recording the voice of the public, compiling the discoveries of the public into a continuity and adding footnotes.[1]

The fine art of cinema, the most highly developed science in our culture, is not generally appreciated. The Oscar is the award of the Academy of Motion Picture Arts and Sciences. Film science has advanced and integrated far beyond other arts and sciences simply because a more or less educated public insists that movies be technically competent and meaningful

[1]Professional astronomical research consists mainly of coordinating the work of amateurs. This book is a response to public experience and findings that are disregarded by professional science. How many cars would Detroit create if the public did not cooperate in making the industry work?

to our lives. As a result, movies are so supremely meaningful to our lives, that its science is taken for granted. We cannot believe that a science we understand so well and easily (albeit unconsciously) can possibly be the most sophisticated of all the sciences.

Understanding science is a process by which you become involved with a semanticist in an act of creation. You cannot participate in the critical process of an art unless you understand the semantic conventions of the art. Art critics acquire sophistication to the extent that they learn the conventions determining the artistic statement. Commercial art is understood automatically because it's restricted mainly to the conventional language; fine arts are difficult to understand because fine arts are devoted to creating new languages.

The scientific correlative of the artistic convention is the "mathematical fiction." The man in the street is confused by the new physics because he cannot distinguish between mathematical fictions and his naive concepts of reality. He is not aware that his concepts of reality are also mathematical fictions at their foundation.

The axioms of Euclidian geometry become mathematical fictions when they are applied to explain real space and time. Land is surveyed *as if* the angles of a triangle add up to 180°. After many years of surveying, it is found that all triangles *do* enclose 180° of angle, so the mathematical fiction is established as a fact. The trouble with facts is that contradictory data is disregarded. Today we know that a triangle encloses 180° only when the real space conforms to an ideal plane within the precision of our instruments. Therefore, theories based on Euclidean geometry are truthful only in special cases.

The mathematical fiction provides venture capital (on loan from the social belief system) for the development and exploitation of science in the same way that unsecured bank drafts provide funds for business enterprises. As the loan is secured by data, the fiction is established as a fact, and a fact is a negotiable asset in the science business.

Before the scientific era, philosophers were not able to perceive the difference between fiction, fact, and real data. In this earlier stage of social consciousness, suspects were convicted of guilt on mere suspicion, and fact was perceived as identical to reality.[2] To contradict reality is insane. In the Sixteenth Century, insanity was believed to be an affliction of demons, so,

[2]The Soviets are still in the medieval stage of philosophical naîveté, and if you delve into the American way of life deep enough you will find medieval philosophers prevailing here, too, way down in Middle-ocrity where lynch law lurks.

naturally, Galileo got psychoanalyzed by the Inquisition when he cast doubt on the reality of a geocentric cosmos. When the heliocentric theory won over the minds of men, everyone regarded it as the *true* reality, and the geocentric theory was disparaged as an archaic delusion. But neither the geocentric theory nor the heliocentric theory is reality; both are facts and both facts are mathematical fictions, both theories are equally true to data, and both theories are exactly equivalent in their calculations from their respective points of reference. The *practical* difference between the two theories is that a geocentric base requires, for proof, a modern computer. The heliocentric base, however, can be proven by a child with two balls and a candle. If Galileo had had the wit to publish heliocentric calculations as a simplified proof of conventional wisdom instead of declaring a contradiction to religion, a lot of pressure would have been removed from his thumbs, and he would have been hailed as a defender of the faith.

Scientists take great pride in the self-correcting process built into their philosophy, like Adam Smith's Capitalist Economics. Science and Capitalism achieved more human life improvement in two centuries than dogma achieved in two millennia, simply because these systems, unlike dogmatic systems, are self-correcting. But in practice, errors do not correct themselves until they grow into such magnificent evils that the system is threatened with collapse. You see, once a theory is established, an integrated social, political, and economic system grows on it like a church. Anyone who expects a professor to realize that all his knowledge is fictitious has never learned the fundamental fact of the advertising industry: a man's convictions are the result of income and expenses.

A scientist is paid, like everyone else, for providing services demanded by customers. The market is the imperious training school, overruling the academy. Like all other ethical businessmen, scientists advertise their product in a way that excites the purchaser into believing he is getting a bit more than is stated on the list of ingredients. This is only good business; and what is good for business is good for science. The public is too busy with private problems to calculate the efficiencies of scientific facts as long as we can afford the price. When hard times make scientific inefficiencies unsupportable, the public stops buying the domestic product, and foreign competitors enter the market with economical, compact models. As a consequence, America is being flooded with Eastern menus, Eastern mysticism, Eastern gas-savers, and Eastern farming, complete with night soil.

Like every other artist, scientific authors are continually achieving fresh insights, with and without fresh data. But publication is final; once a paper goes to press it cannot be changed. If it is not defended as is, even after the

author has changed his mind, a scientific career is dead in the water. You don't have to be a reactionary conservative to be a scientist, but only scientists who present infallible faces to the public and each other can support a family on salary. No artist or Olympic athlete is subject to such unrelenting demand for infallibility since the Colosseum was closed by the S.P.C.A.

No one ever completes a social enterprise all by himself. Brahms would have been out of his mind to try to build a career on top of Beethoven's successes; Brahms said so himself. So Brahms built on Beethoven's *mistakes*. And Beethoven built on Mozart's mistake.[3] Successful creation is nothing more than putting a lot of mistakes together in a way that works.[4] An artist becomes professional when he learns how to sell mistakes. Professional artists, of course, don't show the public their unworkable mistakes, giving the appearance that they are much more skilled and sure of themselves than they really are. The prevailing misconception of the scientific process, however, results in total uncompromising rejection of a scientist and his heretical theory as soon as a single error is detected to detract from the fiction's mathematical perfection. The hapless composer is condemned to oblivion; after he is buried under obloquy, the next mathematician who presents a correction of the error, obscured by his own lexicon, is hailed as a genius as if he did it all by himself.

All human institutions are temporary and are riddled with error. Errors provide the lessons the universe teaches her children. A wise man's education will embrace as much folly as he can afford, and he will laugh. If he embraces more folly than he can afford, he will cry.

Established science is defined by a general agreement among professionals concerning the data deemed acceptable for purposes of truth. The Invisible College is embraced by students who accept data rejected by the public university. The troubles with the Invisible College are disagreements among its members, created by a continuous supply of new data. While new data is circulating and confirmed by independent experiments, each Invisible Collegiate is formulating theories and making measurements on data differing from everyone else's. When each researcher publishes his own findings in his own lexicon, the Invisible College looks like the freak fringe. But after we have done the dirty work and proved data into general agreement, the public university presents it to the public through the mass media as if they have just pulled the rabbit out of the hat. So it is only natural that a bitterness develops to justify the paranoia native around the fringe. You don't have to be paranoid

[3]What was Mozart's mistake? Mozart's audience believed chromatic harmony is a mistake. Wagner's audience loved chromatics.

[4]Read "Beyond Velikovsky" in my previous title as an object lesson.

to study in the Invisible College; the company provides complete on-the-job training.

Science began when Newton calculated gravity. Newton was careful to state explicitly that the acceleration of material bodies toward each other can be calculated *as if* there were a converging force acting between centers. Newton made it clear that the concept of force is a hypothetical, mathematical fiction. But the rest of the world could not distinguish between fiction and reality, and so ignored Newton's caveat. Gravity and force became established realities.

Gravity may seem so self-evident that you cannot conceive of questioning its reality. Perhaps the fallacy of mistaking fiction for fact will become clear to you by comparing gravity with a similar fiction. Aerodynamic drag is calculated exactly like gravity, but no one believes that the "force of drag" exists except as a mathematical fiction of convenience. All engineers know that drag is the sum of fluid friction. Besides, if gravity were so self-evident, how come no one discovered it for over 6,000 years of human history?

The force of gravity became established as fact when Copernicus and Newton opened an era of discovery. The New Territories were defined by the transmission of energy over empty space. Until Newton, no one noticed the transmission of energy except through ropes, traction, levers, and material impact. Newton revealed the fourth dimension of space, even though no one perceived energy as being four-dimensional.

Faraday, following Newton, explained his discoveries in terms of Newton's fictitious force. Franklin added the perfectly reasonable concept of positive and negative electricity. The young science of chemistry proved measurable by the same calculus. Hertz discovered the waves generated by electric currents, and Clerk-Maxwell used more calculus to prove the relationship between mechanical force, current force, and wave force. When Rutherford isolated electrons and protons, the concept of electric monopoles was confirmed to everyone's satisfaction. Classical Physics grew into an elegant marriage of theory supported by data.

Once the Industrial Revolution made it impossible to return to agrarian culture without starving most of the population, civilization became dependent on the mathematical fictions of Classical Mechanics. Every new discovery that could be interpreted in terms of the calculation of force became another investment in the corporation. Concurrently, every discovery that resisted calculation as force became a threat to civilization, so the conscientious scientists had more incentive to disregard refractory data as

inconsequential. You see, when conscience must choose between abstract truth and human welfare (especially one's own), the concept of truth becomes as plastic as necessary to serve one's choice. Furthermore, as a corporation grows into a monopoly, it becomes increasingly easy to get rid of competent employees who don't fit in, without fear that the competition will grab them.

But Classical Physics has no real foundation. All scientists whose competence exceeds their specialty are acute enough semanticists to know that the concept of force does not account for *how* acceleration is transmitted over distance through empty space.

By borrowing from the future, scientists established the concept of the ether. The ether was, supposedly, made up of infinite elasticity combined with zero viscosity and zero inertia, the exact properties needed to transmit energy over distance. So physics continued to expand on an unsecured foundation until the Michelson-Morley experiment made it impossible for men of the least integrity to hold stock in the concept of force or the fiction of ether. Following its century of inflation, Classical Physics went bankrupt.

Einstein was hailed like Keynes in the Great Depression. By replacing the concept of the fictitiously substantial ether with the concept of the fictitiously insubstantial vector, Einstein took science off the Gold Standard of hard data. Modern physics began another boom on the principles of a planned economy, paying its debts on demand by writing fictitious money. The inevitable result of this unlimited money supply was hyperinflation, and so, when science lost its value, people began to return to simpler belief systems. In reaction, scientists are lobbying for laws to prohibit publication of unorthodox literature the way Detroit lobbies for import restrictions on efficient foreign wheels; the fault is in the industry, not in its customers.

Hyperspacial geometry is neither more nor less true than the established science. Both the Invisible College and the public university produce exactly equivalent mathematical fictions, with allowance for individual errors in calculations, of course. The established authorities are wrong only when they act like priests proclaiming that theirs is the one and only truth. Students of the Invisible College are equally in error if they believe their truths are more truthful than the established wisdom. I would reveal myself as an ignorant montebanc in the next few pages if I attempted to prove that the equations in the school texts are mistaken. All I shall show you is the overwhelming simplicity of physics raised to a higher perspective in the scale of dimensions. On this contention, there can be no dispute.[5]

[5]My main risk is being judged simpler than possible.

Don't be bamboozled into believing everything calculated by physicists. Mathematics is merely common logic applied to things you haven't studied. A mathematician's logic in forecasting weather is exactly the same as a carpenter's logic when he plans a house; it looks different only because it is written in Greek shorthand. To a mathematician, a carpenter's shorthand looks like Chinese. In this book, I am trying to translate the language of professional physics into plain English and tangible models, so that you will be able to participate in the scientific enterprise with your common sense in good working order, instead of being a bystander whose only response is "Gee whiz!"

To a Roman, Euclidean geometry was higher math, but unschooled tradesmen could make calculations with a compass and straight-edge that were beyond the capability of the most learned accountants using figures. To the medieval philosopher, Arabic notation was higher math, but algebra made it possible for children, barely past counting on their fingers, to make calculations that defied the most sophisticated Greeks.

To a person versed in just one mathematical language, the others are impossibly abstruse gibberish, yet we know that all mathematical languages make the same statements, and the statements become simpler as dimensions are added to the grammar. As with learning another language, once you have acquired enough fluency to get around in three tongues, you can learn any number of others with little effort. If your fluency in even one mathematical language is halting, however, then you will likely pass over many pages in the next three chapters with less than complete comprehension.

I expect that most readers will be fascinated by the deductions proving the reality of PSI phenomena and the truth of the Bible; to them, the mathematics won't matter. But this book differs from other polemics in support of the spirit world by claiming to be based on thoroughly proven physics. Scientists who read this book will declare me a fraud if I don't supply enough proof to make my claim convincing. So with apologies to soft PSIentists, I must include a sufficiently comprehensive exposition of the Unified Field equations with enough illustrations to convince my very hard scientific critics that this book really is a revolutionary contribution to the scientific enterprise. Besides, without the next three chapters, you would get nothing from this volume that you cannot read in other books by authors more spiritually mature than I am.

7

BEYOND INFINITY

Where did Einstein go wrong?

Telescopic observation of the heavens reveals far more dim stars than bright ones. When it was discovered that all stars of a certain class generate the same amount of light, it was deduced that dimmer stars of the same class must be farther away from us than the bright ones. Spectroscopic examination of the light from these dim stars reveals that the atomic wavelengths are shifted to the red end of the spectrum as a calculated function of increasing distance. This Red Shift is attributed to the Doppler Effect, so it is deduced that the distant stars are accelerating away from us at a rate that increases with their distance. Other stars with light shifted as far to the red are believed to be receding at the same velocity, and they must be the same distance away as all the other stars in the same galaxy. The conclusion of this study is that all galaxies except the ones nearest us are exploding away from us at a rate called the Hubble Constant—named for the astronomer who is credited with bringing this phenomenon to the world's attention.

If all matter in the cosmos is exploding away from us, it can be deduced that everything started exploding from a single location in the universe at some time in the astrophysical past. The time of the Big Bang, originally calculated to be two billion years ago, has been pushed back into the past to keep up with inflation until the present estimated time of departure is an overrun of ten billion years. In the absence of any publication finding greater acceleration in one direction, we must infer that the explosion that began the

universe happened right here. Aren't we lucky? The fact that the cosmic explosion continues to accelerate against the countervailing force of gravity after ten billion years makes the theory untenable within its own frame of reference. But only a timid belief system capitulates to a single impossibility.

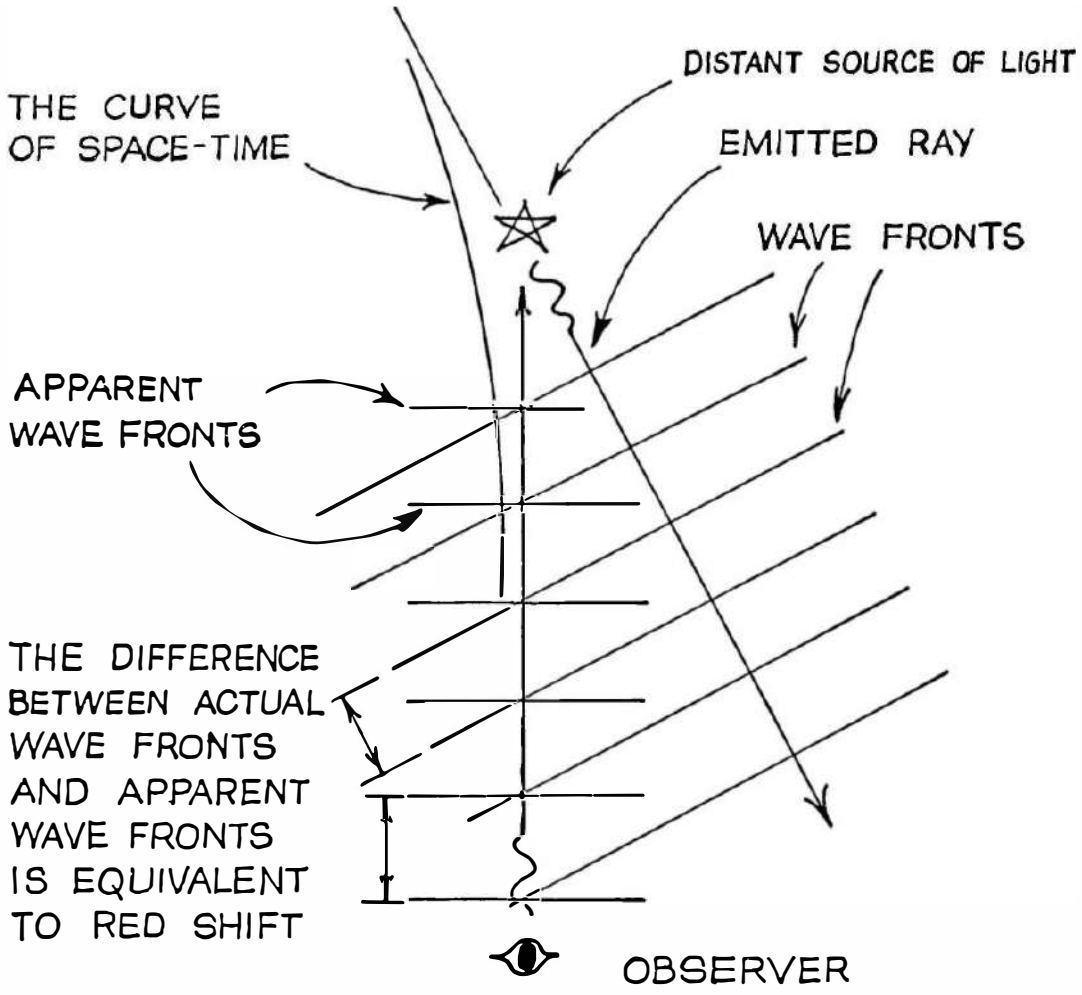
It is not mere perversity, stupidity, or cupidity that maintains the Big Bang theory, but pressure of logic. After Michelson and Morley calculated the velocity of light to be invariable and Einstein resolved the paradox by his Special Theory of Relativity, there was no reasonable way to account for the Red Shift except by the concept of the Big Bang, without violating the data or revising Einstein's calculations.

The Special Theory of Relativity is a mathematical fiction formulated to explain the data of the Michelson-Morley experiment which violates the Classical concept of relative velocity. Since experimental data is inviolable once established, the concept of relative velocity had to be separated at the seams of its data and retailored with a limiting case.

Einstein's equations can be illustrated by a simple diagram. Draw a radial line representing a ray of light from a cosmic source. A series of lines crossing the ray perpendicularly at regular intervals represents wave fronts at a constant frequency. Now, establish an observer at a location to one side of the light ray, at a convenient distance for this construction. Draw a line of sight to intersect the light ray at an obtuse angle. Now, you can see that the wave fronts do not intersect the line of sight at a right angle, but on a bias. The line of sight becomes a hypotenuse that increases the distance between observed wave fronts by the cosecant factor.

Since an observer can perceive radiation only at right angles to the point of detection (on a radial line of sight), no physical means of observation can discern that the line of sight does not coincide with the angle of the ray at emission. The angle is manifest only by an increase in wavelength of the Red Shift. If the angle between the line of sight and the line of emission is plotted as a function of distance congruent to the Hubble Constant, it will be a graphic representation of the central fact of Einstein's Special Theory of Relativity. The essential mathematics of Relativity is simple enough for grade school.

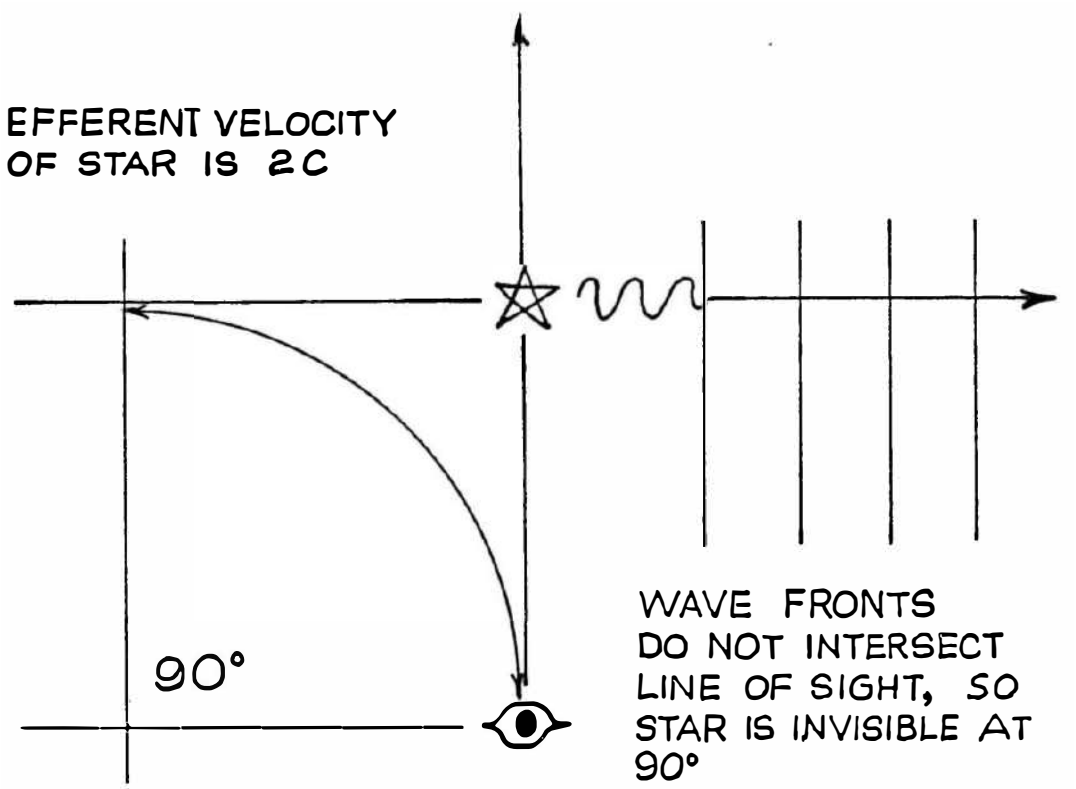
The line of sight tangential to the curve of acceleration defining the Hubble Constant resembles nothing common so much as a line of sight limited by the horizon of the Earth, so the equation is presented to the public as a curve of space around the fourth dimension. When Einstein called time the fourth dimension, everyone was baffled by the concept of a curve in time. But now that you know time is a function of frequency, you know that a curve



in time means that the frequency of a wave is retarded as it traverses space. Had Einstein also stated that time is measured by frequency, you would not have been misled into thinking that something terribly mysterious had been discovered.

The diagram shows that wave fronts on the emitted ray become parallel to the line of sight when the angle between the ray and the line of sight becomes 90°. Wave fronts parallel to the line of sight have infinite separation on the line of sight. Therefore, radiation cannot be detected beyond an event horizon defined by 90° of distance from the observer, as plotted on the diagram of Relativity. 90° of wave rotation proves to be identical to an efferent velocity of *c* (the speed of light) between the observer and the source of light.

Like all energy waves, light radiates at wave velocity in all directions from the source. The light we see is the afferrent phase. As the velocity of the

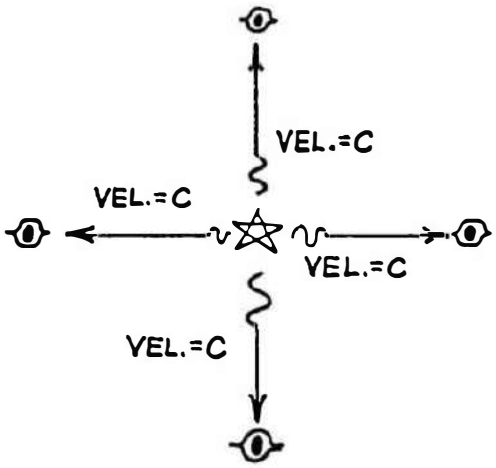


AN EFFERENT VELOCITY OF C SETS AN EVENT HORIZON AT 90° OF WAVE ROTATION

source increases away from the observer, the afferent phase is effectively transformed into the efferent phase. When the source is receding with a velocity exceeding *c*, all phases are efferent and none reaches the observer.

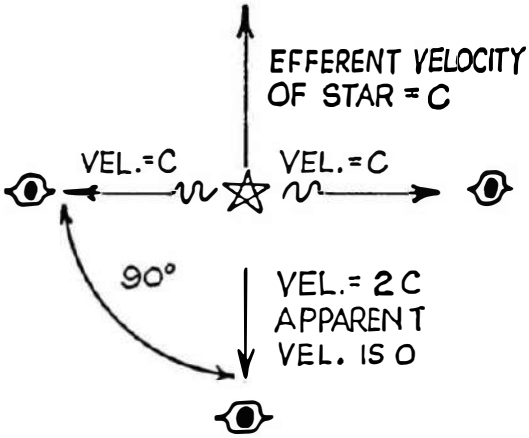
Now if you take a completely naive look at the diagram, you will see that reducing frequency of light at a constant velocity from a receding source is exactly equivalent to a constant acceleration of light from a receding source. The acceleration is manifest as the Red Shift. This arithmetic is so elementary and self-evident that you may wonder why the complications of Relativity were conceived.

You must understand that the Big Bang is a mathematical fiction. So is the Theory of Relativity; so is the Red Shift. All we know for certain is the raw data: light from dim galaxies is shifted to the red more than light from bright galaxies. The Red Shift can be calculated as *equivalent* to the Doppler Effect; as *equivalent* to an acceleration of electromagnetic waves over distance. The Red Shift can be calculated as *equivalent* to a Big Bang; as *equivalent* to a curve around a fourth dimension.



STATIONARY SOURCE OF LIGHT IS SEEN TO EMIT WAVES AT C IN ALL DIRECTIONS.

THE ACCELERATION OF THE LIGHT SOURCE TO C IS EQUIVALENT TO ROTATING THE EMITTED RAYS BY 90°.



THE COMPRESSION OF THE CONE OF VISIBLE RADIATION, AS A FUNCTION OF VELOCITY CORRESPONDS TO SYNCHROTON RADIATION.

Since you have just seen that several mutually exclusive facts can be equally congruent with data, the wise men of scientific philosophy grade the level of truth by three criteria: a simpler truth is preferred over a complex truth; a comprehensive truth is preferred over a limited truth; a truth that predicts is preferred over a truth that closes the subject.

The first proposition of Einstein's canon of Relativity is that light always has the same velocity of *c* to each observer. Note well that Einstein *did not* say that electromagnetic waves always travel at the same velocity. Everyone knows that electromagnetic waves travel at different velocities according to the medium they pass through. (The fact that you can see underwater, where light is traveling less than *c*, invalidates Einstein's original insight that light is light only when it travels at *c*.) But nobody listened to what Einstein *did not* say. And Einstein met opposition in saying all he wanted to say. And nobody had enough faith in their own senses to say "Bullshit" when the authorized version contradicted their own experience. Everyone ran off to typewriter and lectern,

broadcasting what they assumed Einstein *meant;* to wit, electromagnetic waves always travel at the same velocity of *c*. And once the authorized version is established, everyone who reads the original text is disregarded.

Classical Physics was terminated by one of the great tragic mistakes of science: the Michelson-Morley experiment is fallacious. You see, measurement of the velocity of light is made with mirrors. Light does not bounce from the reflective surface the way a golf ball rebounds from a concrete wall. Regardless of the velocity of incidence, light is *absorbed* by the electrons at the silver surface, the photonic particles turn within atomic space to be re-emitted at the constant velocity of *c*. The Hubble Constant is such a minute exponent that it is impossible to measure the acceleration of light between the mirrors in the laboratory, and there is no way to measure the velocity of light arriving from extragalactic space except as a function of its incident wavelength.

If Planck had established his Quantum Theory before Michelson and Morley began their work with the interferometer, no one would have considered their epochal experiment as a measurement of extragalactic light, and there would have been no incentive for Einstein to formulate his Theory of Relativity. But Michelson and Morley did their work before Planck, and Einstein made his conception of the constant *c* before the Quantum Theory was proven. Once the facts were established, scientific inertia could not change. An antinomy developed between the concepts of Relativity and the concepts of Quantum Mechanics that Einstein disputed with Planck to the end of their lives, and modern physics proceeded on a shakier base than did Classical Physics.

If Einstein had realized that Planck's calculations invalidated the Michelson-Morley data, he would have remarked that a stone dropped into a pool of water raises waves that accelerate over distance,[1] and he would have explained the Red Shift as an acceleration of electromagnetic radiation over distance. The Special Theory of Relativity and the Big Bang are unnecessary burdens.

From the fiction of accelerated velocity, even Einstein can solve the problem of the Unified Field Theory. You see, Einstein proved that it is impossible to distinguish between a material particle traveling at the velocity of light and a packet of photons. Therefore, by accelerating a material body to *c*, it is transformed into light. Now, the force of gravity is weak, but given enough time and space, two bodies will eventually accelerate each other to an

[1]The extremely high velocities of tidal waves (tsunamis) are a function of their extreme length, corresponding to the Red Shift.

approach velocity of c. Since photons are electromagnetic particles, you have just seen that constant acceleration of the gravitational field transforms gravity into the electromagnetic field. And there you have the solution to the problem that defied the greatest intellects of science for a century.

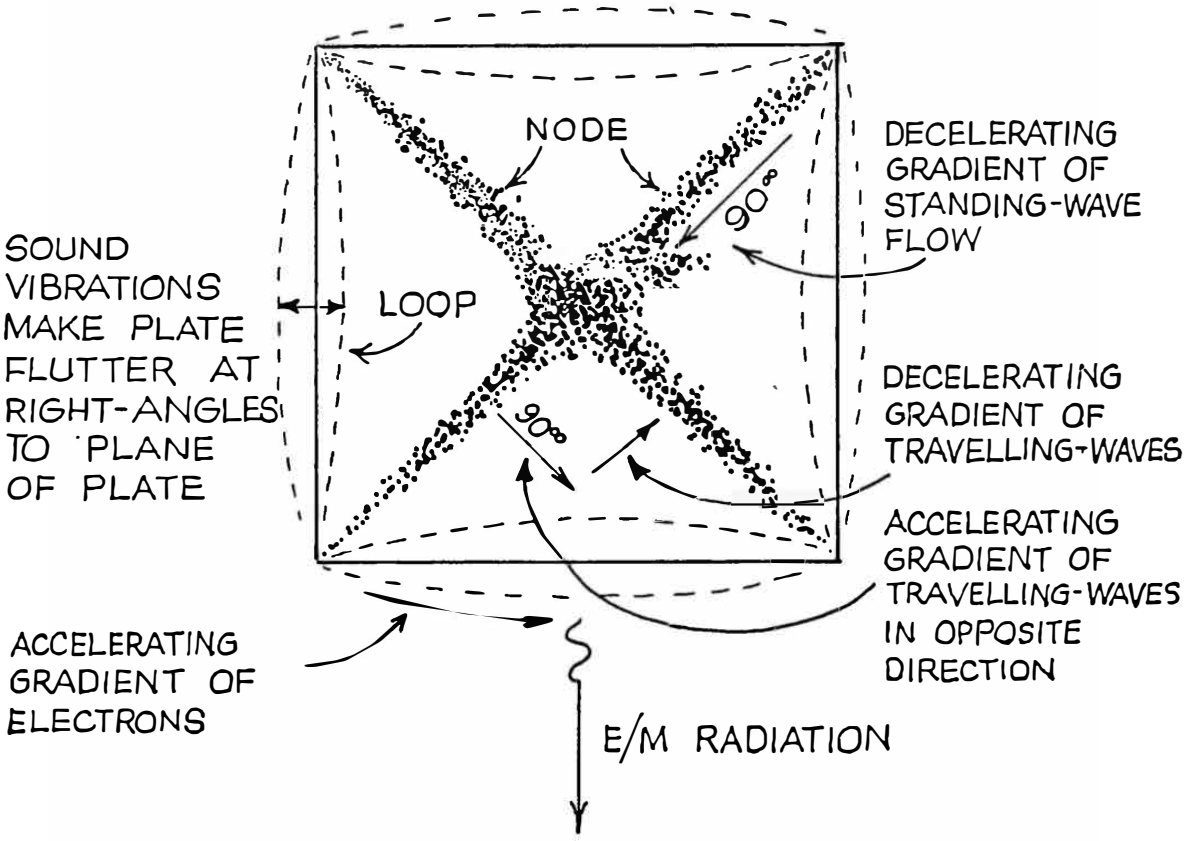
Critics will argue that if gravity is to be transformed into an electromagnetic force by velocity, the gravitational constant must be accelerated over distance. Furthermore, the electromagnetic field accelerates only charged particles. A photon is not a charged particle. Photons cannot be accelerated by the gravitational field because they have no mass. But if the gravitational constant were accelerated by an exponent exactly equal to the Hubble Constant, the transition from the gravitational constant to the electromagnetic constant would be too fine to measure by any means except the Red Shift, so the data remains inviolate. If a photon's mass were so minute that its acceleration in a gravitational field is exactly equivalent to the Hubble Constant, the photon would need no charge to be accelerated and the photon's mass would not be measurable except by the Red Shift; the data is still not violated. The ultimate critical argument is that an acceleration of gravity over distance would inevitably result in all matter, beyond a certain threshold distance, exploding away from us toward the event horizon. Gotcha! This calculated explosion is exactly what is detected by the Red Shift. So the critics are defeated by their very own argument. All you have to do now is project the event horizon into the gravitational center of a hypersphere. And then the Unified Field geometry is revealed as plain and simple as the way a spherical Earth accounts for mundane gravity.

The unified field equations are represented in working order by the Plate Flutter model of the universal hologram described in the previous chapter. The model reveals that wave structure is naturally divided into quadrants. The node marks one pole of a hypersphere, representing material bodies in reality. From the center of the node to the defined edge of the standing wave, the direction of wave flow rotates 90°. You cannot see this rotation because it is too abrupt and the powder is too gross to register the transformation of high-velocity standing waves flowing perpendicularly to the line of the node into low-velocity very short waves flowing parallel to the line of the node.[2] According to the resistance the standing wave material offers the flow of this matter wave, the wave velocity accelerates or retards over distance.[3]

[2]A suitably resilient plate with suitably fine powder will reveal the flow of matter waves.

[3]If the standing-wave node assumes a circular form, the internal wave flow generates a spin. This spin corresponds to the rotation of planets on their polar axes. Spin does not accelerate over space, but over time.

DIMENSIONS OF A SQUARE PLATE

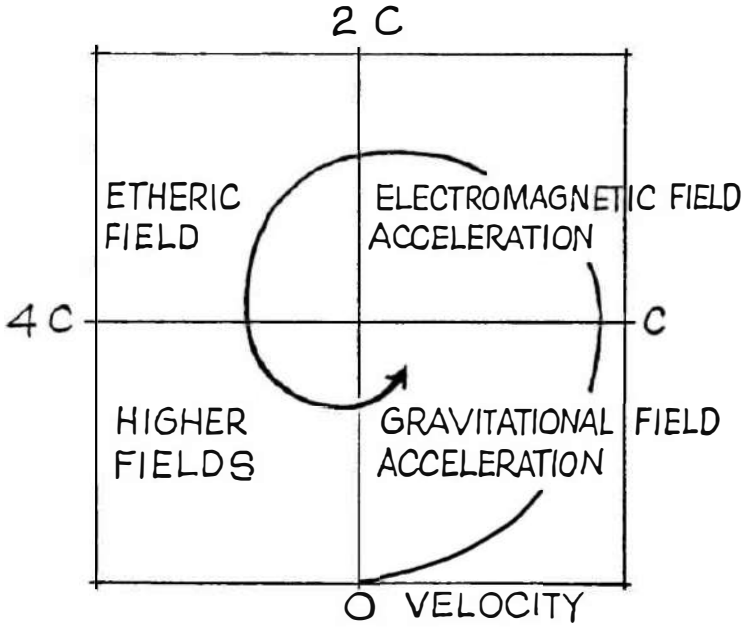


From the edge of the standing wave to the line defining the radiant pole of the field, traveling waves accelerate exponentially from zero velocity to radiant velocity. The traveling wave phase spans the second 90°. You cannot see the gradual 90° of wave rotation because the plate is flat, but at the radiant line, the vibration is clearly at right angles to the plane of the plate.

Sound waves accelerate over distance. In one direction, up, sound waves are retarded; in the other direction, down to the center of the Earth, sound waves accelerate positively with increasing material density until they reach the speed of light; at *c*, sound becomes transformed into electromagnetic vibrations. The transformation of molecular vibration into atomic vibration is not continuous throughout any sizable amount of material, but proceeds molecule by molecule in quantum jumps. As a result, the transformation of sound waves into electromagnetic waves flowing at right angles becomes evident in normal conditions by the generation of infrared heat waves in vibrating material and the correlative flow of piezo-electricity.

As you see, the Plate Flutter model represents four dimensions of space-time, with each dimension defined by a wave flow at right angles to its

ESSENTIAL DIAGRAM OF THE SPIRAL UNIFIED FIELD EQUATION CORRELATING FIELD WITH VELOCITY



THESE CONVENTIONAL TERMS ARE REPLACED BY MORE PRECISE WORDS IN THE TEXT

proximate fields, and with each dimension generated by an acceleration of wave velocity.

Now the loops and nodes of the universal hologram can be plotted as a spiral Unified Field Equation. From zero velocity at the observer, acceleration of a material body along the line of sight in a gravitational field results in a rotation of its velocity by 90° when it reaches the speed of light and its transformation into photons. Acceleration of photons along the rotated line of sight until velocity reaches 2*c* results in another rotation of 90°, where the electromagnetic field is transformed into the nuclear field. Because field acceleration is accelerated by the Hubble Constant, the successive 90° arcs do not close into a circle, but tightens into a spiral. You see, therefore, that the curve of space-time around the fourth dimension does not return to its starting point, but continues indefinitely until it reaches a point in the center—infinity.

Current parlance in the Invisible College refers to the waves of the nuclear field as etheric, retaining the concept of the luminiferous ether from the last century. But terminology has become a babel in the hyperoctaves above high *c*. Several researchers speak of PSI waves, virtual waves, quantum

waves, orgone waves, Tesla waves, scalar waves, pyramid waves, psionic waves, bioplasmic waves, and thought waves, with every discoverer adding another term to the lexicon without reàlizing that the words don't mean anything different. To bring order to this chaos, I am calling the waves comprised by the quadrant centered on c, *"magnetic,"* the waves comprised within the quadrant centered on $2c$, *"electric,"* the waves comprised within the quadrant centered on $4c$ *"etheric,"* and all waves exceeding $4c$ can be referred to as successive orders of *"pranic"* waves, in recognition of the ancient mystic Masters who left us the earliest charts of the ultrahigh c's.

Physical equations are derived from the spiral as follows: every point on the spiral defines a unique distance from the observer that can be expressed as meters, miles, or light years. Since velocity increases with distance, every point on the spiral defines a unique velocity. Since acceleration increases with distance, every point on the spiral defines a unique acceleration. Since acceleration is equivalent to energy, every point on the spiral defines a unique momentum. Since wave length is a function of velocity, every point on the spiral defines a unique wave length differential. Since frequency is the reciprocal of wave length, every point on the spiral defines a unique frequency differential. Since frequency measures time, every point on the spiral defines a unique time stream. Since time stream defines space, every point on the spiral exists in its own space. Since acceleration is a function of voltage, every point on the spiral defines a unique voltage. Since voltage is the reciprocal of resistance, every point on the spiral denotes a unique resistance.

Wave length is infinite at the event horizon. Therefore, voltage must be infinite. Therefore, resistance must be zero. In other words, space becomes superconducting at the event horizon. *Note well.*

The size of the spiral graphic equation is arbitrary, but the angle of the radius of generation is constant for each uniquely defined point. Therefore, every energy value of all fields can be defined by the correlative angular value of the radius or the corresponding angular value of its tangent.

The acceleration of the spiral is defined by shortening the length of the radius of generation. The length of the radius is arbitrary, but the velocity of its shortening can be represented by a rotation of the radius toward an axis at its origin, perpendicular to the plane of the spiral, concurrent with the rotation on the plane, and projecting a shadow length to the plane. The spiral, therefore, is a vortex. Now, all dimensions of energy can be plotted by two angular coordinates, like azimuth and altitude.

The emergence of the vortex into the third dimension means that the square exponent governing the ratio between velocity and energy gradually becomes cubed. In everyday experience, velocity is so low that the cube is negligible, but by the time the *c* coast is reached, momentum is not merely cubed but rising toward the fourth power. This is why nuclear forces suddenly become a million times more powerful than the familiar forces. The exponent of momentum accelerates by successive squaring, as each dimension is added, because we have proven that all the measured units in space are squared in number when space is expanded to a higher dimension.

Roman numbers are an infinite series extended by a regular introduction of unique symbols. Arabic notation returns to itself in a cycle expressing the second dimension by its very structure. Then, the plane of the cycle from 1 to 10 is raised to the third dimension, forming a helical progression. As higher exponents of 10 are added, the helix turns into a cone. The conical coil of Arabic numeration constructs a matrix corresponding to the unified field spiral equation. The succession from one unit to another can be raised by successive integers (1,2,3...), harmonic intervals (2,4,6... or 3,6,9... etc.), factors (2,4,8... or 3,9,27... etc.), exponential intervals (2, 4, 16, 256... etc.) or logarithmic intervals (1, 10, 100, 1000... etc.). Each set forms a conical matrix that cuts cross sections into the elementary numerical matrix in order to facilitate the calculation of the field acceleration at hand. Numbers are the most truthful language because they progress in forms that are exact replicas of the way the universe unfolds.

The mathematical blockage foiling every professional attempt to solve the Unified Field Equations by conventional, three-dimensional logic is that an infinite term or a zero term always appears in the calculation. To tridimensional logic, a single infinite term makes *every* term in the equation zero. Therefore, as soon as either value enters the equation, the quest for the Holy Grail is abandoned as nonsense. You have to be thoroughly inculcated in tridimensional logic to appreciate the humor of the situation.

The arithmetical matrix solves the problem of the nonsensical terms by immediate inspection. After you count 1,2,3,4,5,6,7,8,9, you have used up all your symbols. Therefore, the next symbol is ∞, *Infinity.* As soon as you place ∞ in the series, the matrix rises from a two-dimensional circle into a three-dimensional helix. As soon as you enter a higher dimension, ∞ becomes 0, and you start counting from 1, again, to repeat the cycle. Therefore, ∞ in one space is equal to 0 in a space of higher dimension. Therefore, whenever

the unified field equations require an infinite value, all you professional mathematicians have to do is add another dimension; every time the unified field equations reveal a zero value, you know that you have lost a dimension. The plotting of arithmetical language into the hyperbola of graphic language shows that the span from 0 to ∞ is equivalent to a rotation of 90°. See how simple physics becomes when you use hyperspacial mathematics? This is the most advanced mathematics in the world, utterly beyond the comprehension of all but the greatest genius in the world when calculated in the conventional language, but as easy as metric measurements are for a child.

Now we come to the question everyone has asked since learning to count. How far can counting go to reach the end of numbers. How much is infinity? The model provided by Arabic numeration shows us that ∞ means *all there is*. In the decimal system, ∞ is the number after 9. On a graphic equation, ∞ is whatever value is required to generate a rotation of 90°. In the case of velocity in the electromagnetic dimension, ∞ means *c*. In the case of momentum, a rotation of 90° in the electromagnetic dimension means squaring all you got.

You still want to know how far you can count until there are no more numbers? (I was afraid you'd insist on that before you fell asleep.) If you inspect the spiral equation, you will see that the curve turns 90° *before* it plots a perfect hyperbola. This means that absolute infinity is never reached. It is the absolute and incorrigible randomness of the universe that enables it to extend without limit. By the time you return to your starting place, everything has changed.

Now that the mental block at ∞ is broken, you can expect scientific and popular literature to be flooded with Unified Field theories, all meaning exactly the same thing; the arguments will be over mistakes in arithmetic.

Each quadrant of the unified field spiral is generated by doubling the velocity of the previous field. You will recognize that the Unified Field Equation has the same structure as music. It is possible, now, to translate all physical equations, all morphology, and all measurements into exact equivalents of music. Now we can replace all our electronic computers with a *human* computer—music. Bernstein knows how the universe unfolds better than did Einstein. Following the rules of musical composition, technology can be calculated, tried, and proven for creating made-to-order molecules and atoms. Nuclear chemistry can be formulated on the same scales as five finger exercises. *The New Age of Alchemy is about to begin.*

Music will be the salvation of humanity at a time when we are annihilating ourselves by our mechanical ingenuity. You see, the esthetic emotion that guides musical composition is a direct hotline to the infinite intelligence of All That Is beyond ultraspace. No finite computer can possibly approach the creative logic of infinite dimensions. This is one calculation that will never be proven wrong even by non-Aristotelian logic.

The medieval alchemists had not the slightest conception of scientific method, yet their records contain information of harmonic vibrations as precise as modern physics. The alchemists could not have discovered these physics empirically. Their mathematics were not capable of the calculations, and their concepts were so fantastic that they were unable to recognize a subtle equation when they found one. The medieval alchemists must have been empiricists devoted to a wild search for a science long forgotten, one certainly implemented in some prehistoric age of mankind—or supermankind.

8

THE SONIC FIELD

How to generate gravity with sound

A Unified Field Theory, constructed as a spectrum of successive fields, each defined by a doubling wave of velocity concurrent with a rotation of 90°, has no beginning without accounting for the gap between the constant acceleration of gravity and zero acceleration.

A geometry revealing the missing steps of acceleration can be found in the model of the Solar System. The velocity of each successive planet in its orbit varies from the velocities of proximate planets by a factor of 2. Each planetary orbit, therefore, corresponds to a field of force in the general Theory. Each planetary orbit also corresponds to an octave of musical sound. When an octave is generated by accelerating wave velocity to double wave frequency, it is called a *hyperoctave*. If sound is conceived as material in motion, then each planet in orbit corresponds to a perfectly coherent wave of sound. Since planets in orbit are being propelled by gravity, it becomes apparent that gravity is intimately associated with sound waves, as the Ancient magicians seemed to know.

The geometry of the sonic spectrum represented in planetary orbits is illustrated by the model of a wheel. A wheel corresponds to a wave rotating over a surface at a constant velocity. The hub on the axis of travel has the same constant velocity. The leading and trailing rims also have the same velocity as the wave, but in addition they have the same speed as the wave at right angles to the wave velocity. The trailing rim accelerates from wave velocity to double

wave velocity when it is directly above the hub, after 90° of rotation. The topmost point of the rim then decelerates over a rotation of 180° until its velocity is zero where it contacts the surface on which it rolls. Note that the wave velocities of all harmonic overtones are defined by the angle of the rim.

Now, if the top and bottom points of the wheel define the hubs of adjacent wheels, we have a set of epicyclic wave forms with a velocity differential of 2X between each, resembling the Solar System.

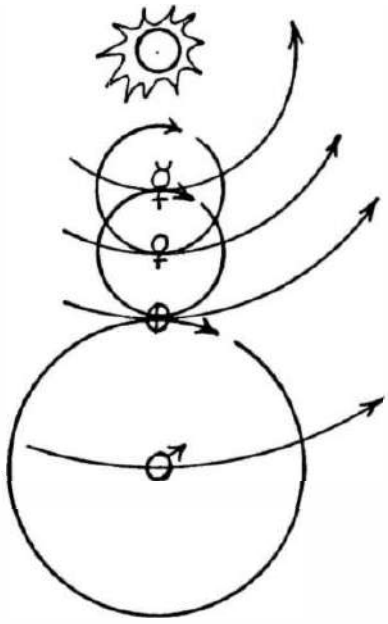
If waves can be detected only at right angles to their flow, the angles of waves corresponding to harmonic overtones may be faint enough to be undetected. As a consequence, space defined by continuously extensible wavelengths appears manifest in discrete quantum units.

At first sight, it seems that reducing the velocity of each successive epicyclic wave by half will eventually reach zero velocity. Zero velocity of material bodies in the sonic field is equivalent to Absolute Zero in temperature. But reducing velocity by successive halves is an operation that can proceed infinitely, so Absolute Zero is a theoretical impossibility. Mathematicians are rescued from the embarrassment of zero/infinity by the Lambda Point. Before all material motion stops, molecular velocities synchronize coherently, and sonic velocity is transformed into electromagnetic waves flowing at right angles. The material dimension is contained within the velocity range between the Lambda Point and *c*. It can be inferred that all the other fields are contained within their Lambda Points, too.

Every coherent material motion is manifest with a conjugate magnetic wave flowing at right angles, and if material is divided finely enough, its particles eventually acquire coherent velocity. Therefore, all material motion, however incoherent, is associated with electromagnetic waves flowing at right angles with equivalent coherence. Now, you will notice that the Sun radiates electromagnetic waves and that the gravitational velocity of the planets is at right angles to the electromagnetic flow of radiation from the Sun and the electromagnetic counterflow of radiation to the Sun from the universe.

Newton's concept of an attractive force of gravity counterbalanced by an equally attractive centrifugal force is equivalent to pressure between an electromagnetic flow and counterflow.[1] The concept of Attractive Force is impossible to prove in physics, and physics has become incomprehensibly complex as a consequence of cumulative efforts to define an attractive agent. Pressure gradients and fluid dynamics, in contrast, are self-evident and simple.

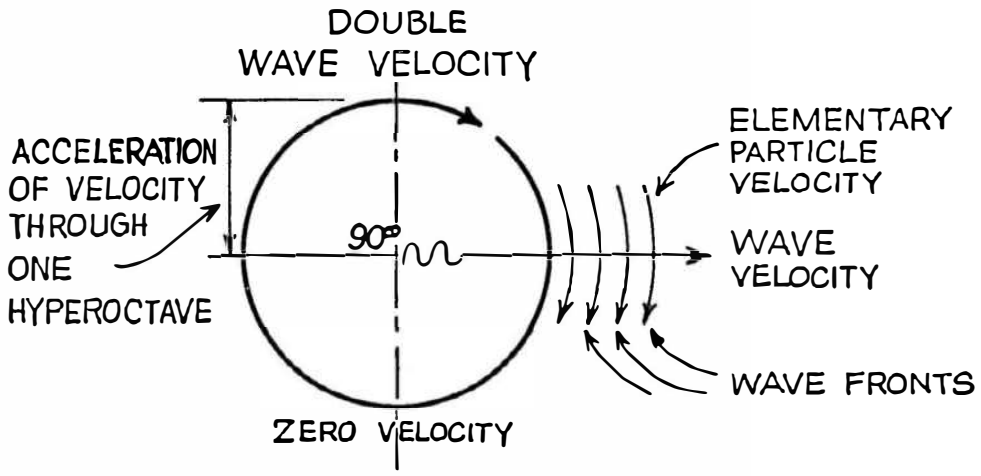
[1]Bode's Law of Planetary Harmonics is explained by this model in the chapter "Beyond Velikovsky" in my book *How To Build A Flying Saucer.*



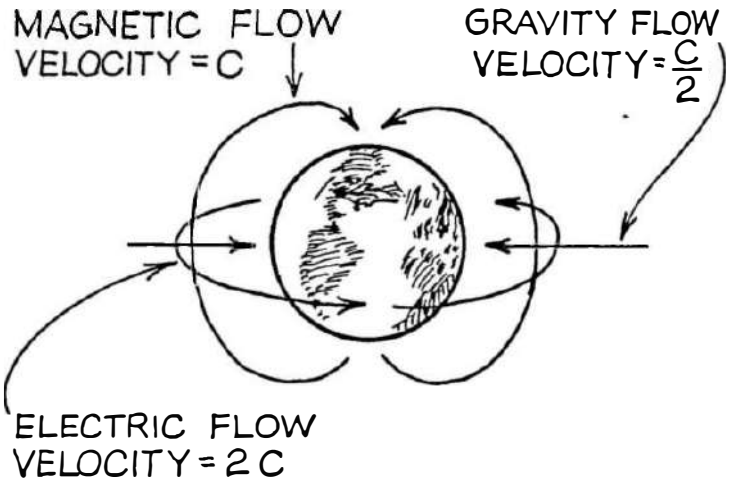
THE ORBITS OF THE PLANETS CAN BE REPRESENTED AS IF EACH PLANET WERE THE CENTRE OF A CIRCULAR WAVE ROLLING AROUND THE ORBIT OF THE OUTER PLANET

It seems that every time a seminal scientist has to decide between equivalent theories, Murphy's Law compels the choice to be wrong, and science takes the wrong direction around the universe. So Ben Franklin decided that electricity flows from positive to negative, Newton decided that gravity sucks, and I made the wrong choice of harmonic doubles in my concept of atomic structure as described in "The Philosopher's Stone." But *I* have been able to correct my mistake.

The Earth is a magnet surrounded by magnetic lines of force following the meridians from pole to pole and plane-parallel to the Terrestrial surface.



A ROLLING WHEEL ILLUSTRATES HOW THE ROTATION OF ELEMENTARY PARTICLES AROUND 90° GENERATES SUCCESSIVE HYPEROCTAVES



THE ELECTROMAGNETICMOTIVE FIELD

The model universe described previously explains magnetic lines of force as nodes generated in a standing-wave pattern of waves flowing laterally and radially. Unified Field geometry makes the velocities of these three flow axes to be c, 2c and c/2. Since the field centered on c is assigned to the magnetic vector and the field centered on 2c is assigned to the electric vector, the field centered on c/2 must be assigned to gravity. If light flows radially and light is a magnetic wave, then the magnetic waves must flow radially and the other two must flow plane-parallel in opposite directions with freedom to rotate on the plane.

As it happens, the three fields surrounding the Earth are represented by three corresponding vectors in electrical engineering. The third vector of electrical engineering is called by a different name in different countries, confusing the issue enough to hinder investigation. In England, it is called the Fleming Force; on the Continent, they call it the Lorentz Force; in America it is often called the electromotive force. To avoid ruffling national jealousies, I shall add one more neutral term to the list of synonyms by calling the third vector the Motive Force.

A few years ago, William Whamond, a retired professional engineer in Quebec, came to the realization that the third vector of this engineering must be gravity. This discovery is as momentous as the invention of the wheel because it means that conventional electrical engineering can be calculated to generate antigravity. With antigravity, who needs wheels any more? We'll all ride air cars like we saw in *Star Wars*.

There is only one problem. The motive force appears to accelerate ferromagnetic materials selectively, whereas gravity/sound waves move all material regardless of charge.

This problem may be explained by a close analysis of Unified Field geometry. Each planetary orbit in the epicyclic model corresponds to the center of a wheeling field that extends one hyperoctave in both directions. Therefore, half the gravitational vector centered on c/2 must overlap half the magnetic vector centered on c. Over the hyperoctave extending between c/2 and c, the gravitational field must accelerate charged bodies as well as uncharged material, and the magnetic acceleration is so much more powerful than the gravitic component that if gravity can be detected at all, it is only as a slip in the magnetic velocity that is confused with the electric vector. Furthermore, instruments calibrated for magnetic fields will register only the velocity of c, and c will be assumed to be the velocity of all gravitational waves.

As the frequency of planetary orbits accelerate, orbital velocity rotates from the tangent to the radius of the Solar field. When orbital velocity reaches c, its direction is a radial fall into the Sun. (Orbital velocity reaches c within the body of the Sun at a radius corresponding to the electronic orbit of an atom, where the stellar center, like the atomic nucleus, becomes a Black Hole.) Outside of the c orbit, all gravitational trajectories include a tangent vector, and velocities are less than c. The highest frequency a gravitational orbit can attain is conjugate with a velocity of c/2, and this is the highest possible velocity of sound, qua sound. At c/2, the centripetal velocity of a material body is equal to its revolutionary velocity, and the body has a magnetic charge equivalent with its weight.

Unified Field geometry presents the contradiction of wavelength, increasing as a function of velocity in some cases and decreasing in others. This paradox is accounted for by a distinction between two concepts: field velocity and particle velocity. Field velocity is the velocity of wave propagation through the medium of the local space. Particle velocity is the velocity of bodies comprising the field. Field velocity is the integration of all particle velocities. As field velocity increases, so does wave length, but as particle velocity within a constant field increases, wave length decreases. When particle velocity equals field velocity, its wave is propagated at right angles and at twice the field velocity. In other words, when particle velocity exceeds field velocity, the wave is transformed into its proximate field. Particles exceeding field velocity "gravitate" from the field and are expelled.

The velocity of c/2 establishes the gravity wave as the longest possible magnetic wavelength and the largest possible field of sound. In fact, a single wave of gravity extends from the observer to the event horizon in merely 180^{∞}

of rotation. In other words, within the lattice of standing waves constituting the universal crystal, our material cosmos is contained within a single standing wave of gravity. There isn't a more elegant or more comprehensive calculation in all of astrophysics. As the acceleration of a wheel is constant, so is gravity. It is defined by the single constant of acceleration throughout its wavelength.

A diagram of the cosmos as a gravity wave places the observer at the center, where the wheel of the gravitational hyperoctave touches the ground at zero. The hub of the wheel, 90^{∞} away, is projected as a circle around the observer. The hub represents field velocity. This means that a constant gravitational acceleration over 90^{∞} of space will accumulate a velocity of c/2. The event horizon, 180^{∞} away in the gravitational field, is the upper point of the gravity wave's rim where velocity is c. Gravitational acceleration reaches an efferent velocity of c at the event horizon.

Vector analysis of this diagram reveals that bodies with a velocity less than the gravitational field must accelerate toward the field center. As a result, we see all the stars within 90^{∞} of us tending to condense toward a gravitational center as they should. Conversely, because bodies exceeding field velocity drift away from field center, all the stars beyond 90^{∞} are seen, by the Red Shift, to be exploding away from us. The constant rotation from the centripetal radius to the centrifugal radius is congruent with the Hubble Constant. So there you have the Exploding Universe without any need for a Big Bang.

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If the radius of the cosmos is 180° of the cosmic gravity wave, then the magnetic field must span the cosmic radius in 90°. In fact, Einstein proved this calculation by his 90° curve around the fourth dimension to the event horizon. And the universal electric wave spans the cosmic radius in 45°. Therefore, the universal hypersphere, extending in six dimensions, has a radius curving four times farther away than the event horizon. Since volume

expands by the cube of the radius, there is room in the universe for 64 material realities on the same scale of our cosmos. It may be speculated that the Hindu fascination with permutations of 64 is a relic of an Ancient science that had measured the universe.

A correct understanding of the correspondence of gravity with the third vector of electrical engineering means that a technology for antigravity is contained within the Clerk-Maxwell Equations.

The most significant device I have been fortunate enough to witness was displayed at a Science Fair in the University of Victoria. Two plane-parallel discs, mounted horizontally, eight inches apart, were wired as the electrodes of a capacitor. A metal ball on the bottom plate revolved around the circumference with a velocity that varied directly with the charge. The professors admitted complete mystification, and explanations were invited from the public.

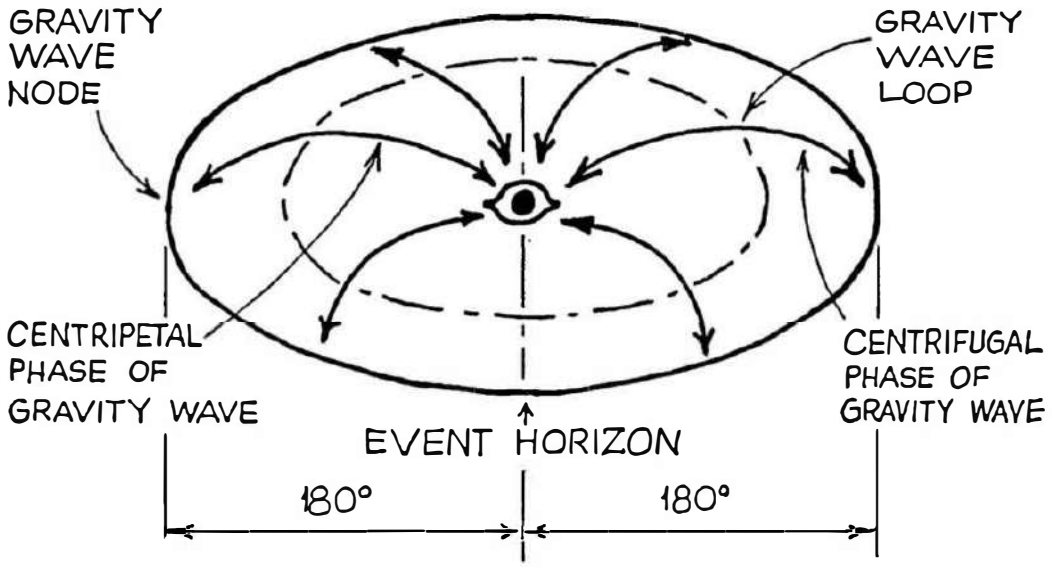
Established electrical theory admits no flow between the electrodes, or else the capacitor must discharge rapidly. Nevertheless, *something* is driving the ball. If the propulsion were magnetic, the ball would jump between the plates as a charge carrier. If the propulsion were the motive force, the ball would be driven as powerfully as the rotor in an electrical motor.

Michael Faraday discovered low-velocity, high-amp currents flowing across magnetic sections and built motor/generators of incredible efficiencies over two hundred years ago. The U.S. Army Proving Grounds has adapted a Faraday homopolar motor to generate a current of electricity of such intensity that it vaporizes steel in a flash—so that the metal functions as a low explosive for firing a rail gun. The homopolar motor has been suppressed, even more than Tesla's discoveries, from the public and private industry.

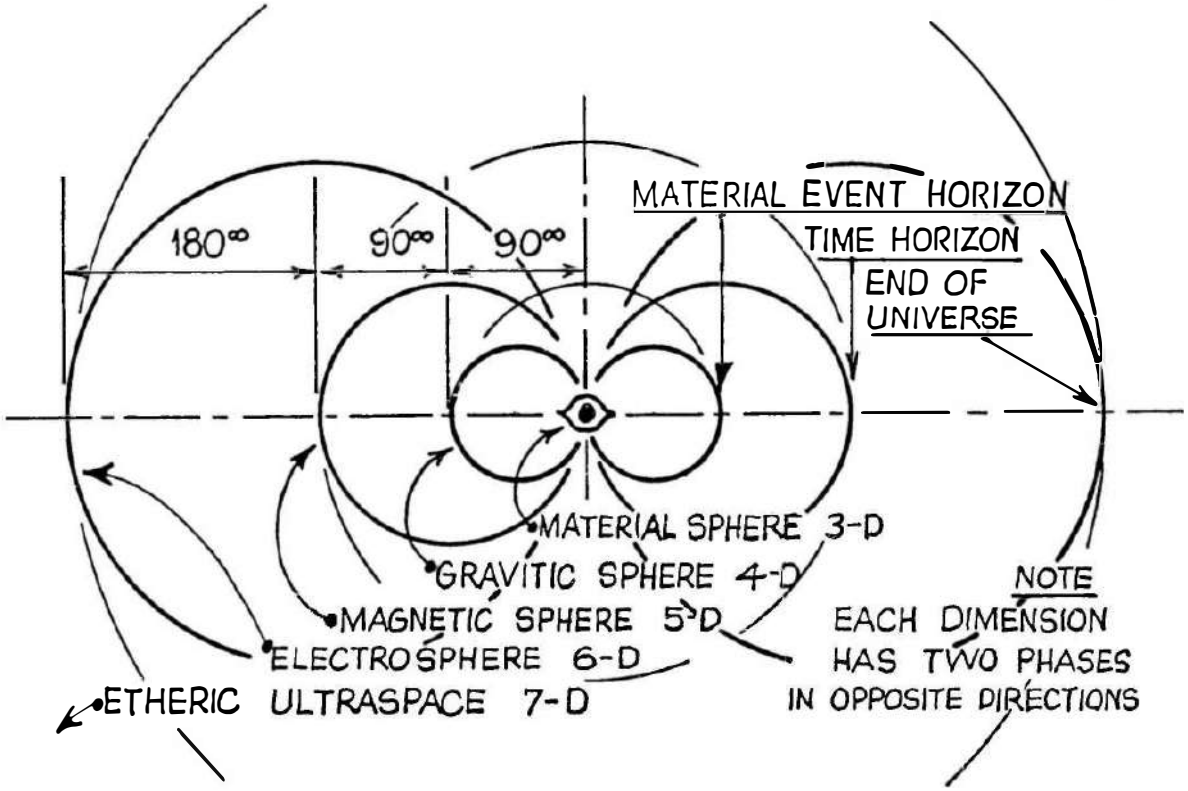
The low-velocity currents discovered by Faraday, the low-velocity revolution of the ball without any mechanical directional constraints in the electrostatic device, and the electrostatic patents of Townsend-Brown all confirm Unified Field geometry. All we need to prove that the motive force attenuates into gravity is a reconstruction of the electrostatic device to see whether it will propel a nonmetallic ball. I dare say a lot of electronic tuning will be necessary to engineer the half twist between the two phases of the gravitational field. Until then, Whamond's announcement must be regarded as being as momentous as the invention of half a wheel.

Once a mechanical connection is established between the third vector of electrical engineering and gravity, enterprising Americans with more than average know-how will be able to get in on the ground floor of a radically new industry that will change the world like nothing has since Ford put the Model

PERSPECTIVE VIEW



THE COSMOS IS CONTAINED WITHIN THE 360° SPAN OF A SINGLE STANDING-WAVE OF GRAVITY DEFINED BY A VELOCITY OF $\frac{c}{2}$



CROSS-SECTION OF THE SIX-DIMENSIONAL HYPERSPACE

NOTE THAT THE EVENT HORIZON ESTABLISHED BY THE COSMIC NODE OF THE GRAVITY WAVE COINCIDES WITH LOOP OF THE MAGNETIC WAVE DEFINING THE EVENT HORIZON

A on the road. Furthermore, a practical propulsion to implement the exploration of other planets relieves international pressures that are driving Hawks into an atomic Armageddon. Not since the palmy days of Edison, Ford, Marconi, Westinghouse, Bell, the Wright Brothers, and home-brewed street drugs has America possessed such opportunity for economic expansion and industrial power to dominate the world.

But Professor Shinichi Seike of Tokyo University is moving up fast on the inside track with transistorized antigravity devices, incorporating the Möbius Twist between the two phases of the third vector. If Silicon Valley and Townsend-Brown don't beat Seike and Zaibutsu, it is going to be Sony, Nikon, and Honda all over again, and the Rising Sun will rise over the planets, not the 50 Stars.

Please do not write to me for information on how to get started in the antigravity business. Everything I know now is in this book. The proper place to make inquiries about turning invention into money is the office in your community of the federal assistance program for the promotion of small business and industrial development. If the manager will not take seriously your proposal for a Flying Saucer factory, you have good reason to suspect you are getting ahead of yourself.

The government bureaucracy is set up to take every proposal seriously that is presented according to protocol. The rules of the game make no proposal too far out to be funded, as long as the rules are adhered to. Therefore, your first step to the ground floor of a revolutionary industry is learning the protocol of business and bureaucracy. The more radical and revolutionary the concept, the more you must depend on protocol to sell the idea to the vast network of businessmen and officials you will have to deal with if you don't want to be arrested for stopping traffic. They *want* to give you their money; they are *paid* to give it to you. But they must be sure their asses are covered from every angle. You provide them with the cover, and they'll provide you with cash.

On your way to the patent attorney, you should take notice that two World Wars were fought and won during the time it took the Wright Brothers to make America supreme in world air power. If we had lost either of those wars or if we had gone in on the wrong side, it would have taken considerably longer. By then, all original patents had expired. If you want to grow rich on antigravity, plan your career to keep your patents in effect until everyone is putting two VolksSaucers in the family garage.

9

EXPLORING THE VELOCITY GRADIENT

How all physics can be explained in terms of velocity

Before a scientific theory will be accorded serious consideration, it has to satisfy three criteria. It must comprehend all the known data. It must explain the data more simply than all competing theories. And it must predict data yet to be discovered. Included within "prediction" is the comprehension of data long discovered but never accepted as fact. Before proceeding to the predictions that everyone is eager to read about, it is necessary that the first two criteria be answered. But if you cannot restrain yourself, nothing is stopping you from proceeding directly to the next chapter.

In the *full* space of a universal hologram, in contrast to the *empty* space of Classical Physics, there is no problem accounting for the transmission of acceleration over distance. Planetary bodies (e.g., the Moon) ride a pressure gradient maintained by the flow of wave particles from the loops of the motive field to the nodes, as described in "Beyond Velikovsky." Once in the nodes, planets are squeezed by fluid pressure from both sides and forced to slip at right angles. This is why you never see a planet falling into another planet. True gravitational velocity flows at right angles to the radius between centers of bodies.

The unified field model shows that the most stable planetary orbits are defined by octave intervals where the spin axes of the planetary bodies are exactly 90° to the plane of the ecliptic. The plane of the ecliptic is stabilized through the equator of the primary body. Data reveals considerable disorder among the planets, with a correlative violation of Bode's Law. From the disparity between the ideal model and the Solar System as we find it, we can infer that the planets have been disturbed by interstellar flypasts in recent astrophysical times.[1]

Relatively stable orbits can be established, however, where the spin axis of the planet is at exactly right angles to the wave axis of the motive loop. The Earth and Mars are evidently locked with Venus in harmonic orbits nearly 30° from the Solar node, but exactly one hyperoctave apart from each other. Nevertheless, there must be a drift carrying us slowly to the Solar node, and future Terrestrials will have to accommodate themselves to a frigid or torrid climate, depending which way we are drifting.

The closest a planet can approach its primary is defined by the radius where the orbital velocity is 45^{∞} of the motive waves holding the planet together. As orbital velocity approaches sonic velocity through the planetary material, the orbit becomes increasingly precessive, eccentric, and unstable until it collapses and the planet begins a final fall into its primary.

When a satellite approaches its primary within the distance where the primary's field acceleration exceeds the satellite's, a tidal bulge appears on the satellite that tears it apart. Disintegration proceeds until the satellite shrapnel is reduced to sizes where their cohesive motive field once again exceeds the velocity of its orbit. As a consequence, primary bodies are preserved from frequent interplanetary collisions, and once a planet reaches a certain size, it will develop a ring system of fine particles.

Because gravity can be analyzed *as if* there were a mutually attractive force that is a function of mass, it follows that the farther away a planet is from its primary, the larger it must be for the mutual attraction to hold it in orbit against its own momentum. The limiting case is planets of equal mass orbiting each other. Therefore, after a certain distance from the primary, planetary bodies must increase in mass at a rate that is equivalent to the reduction of orbital velocity with distance. After a certain distance, stable orbits require planets of such mass that inner planets will be disturbed. Pluto is probably the smallest planet that can survive even a short time in an ultraNeptunian orbit,

[1]Alternatively, cosmic harmonics may put warps in the plane of the gravitational ecliptic.

so announcements of more distant planets discovered should be received with reserved skepticism until the limiting equations are satisfied.

The refraction of motive waves passing through a material body causes the material to resonate, and the motive waves are transmitted as sound. These sound waves are the true *Music of The Spheres*. Each body has a unique tone. The tone of the human body is the sound of OM.

The refraction of motive waves through a material body produces a reduction in the wave pressure on the lee side. The tidal effect of the Moon on the Earth can be calculated *as if* the Moon reduces the motive pressure on its lee side to yield the same tide as the Classical equations. The advantage of the new fiction is that it promises the practicability of engineered gravitational shields. At the University of Toronto, Mel Winfield claimed to have invented a gravity shield.

Once gravity is proven to be equivalent to a pressure gradient, the abstruse complexity of Einstein's General Theory of Relativity is reduced to the geometry of a weather map. Space ships can then ride the currents of the cosmos like sailors once rode the seas in clippers. Professor Eric Laithwaite of England's Imperial College is charting the currents of deep space now.

Every field is defined by a specific energy level that is constant throughout its compass. You can prove this by exercising simple arithmetic. The orbit of Jupiter is five times the radius of the orbit of the Earth. Therefore, the circumference of Jupiter's orbit is five times longer than the Earth's. If Jupiter circled the Sun in one Terrestrial year, Jupiter would have to travel five times faster than the Earth. Since energy is half the square of velocity, equal orbit times would give Jupiter twelve times the orbital energy of the Earth. But Jupiter takes twelve years to circle the Sun, so its energy of field propulsion is equal to the Earth's. These figures are, of course, rounded off for the convenience of calculation.

We can deduce from this simple calculation that every body that belongs to its field has the same field momentum and no proper velocity of its own. In other words, every body that belongs to its field is an integral part of its field. A body possessing proper velocity, therefore, does not belong to the field in which its proper velocity is manifest but must represent its own field interacting with another. The interaction of two fields is similar to a collision between galaxies. Elementary particles collide throughout the volume of contact, transforming themselves into finer waves that register as radiation, until all phase opposition is annihilated. Then the two fields are united, and the bodies of both stabilize at orbital velocity.

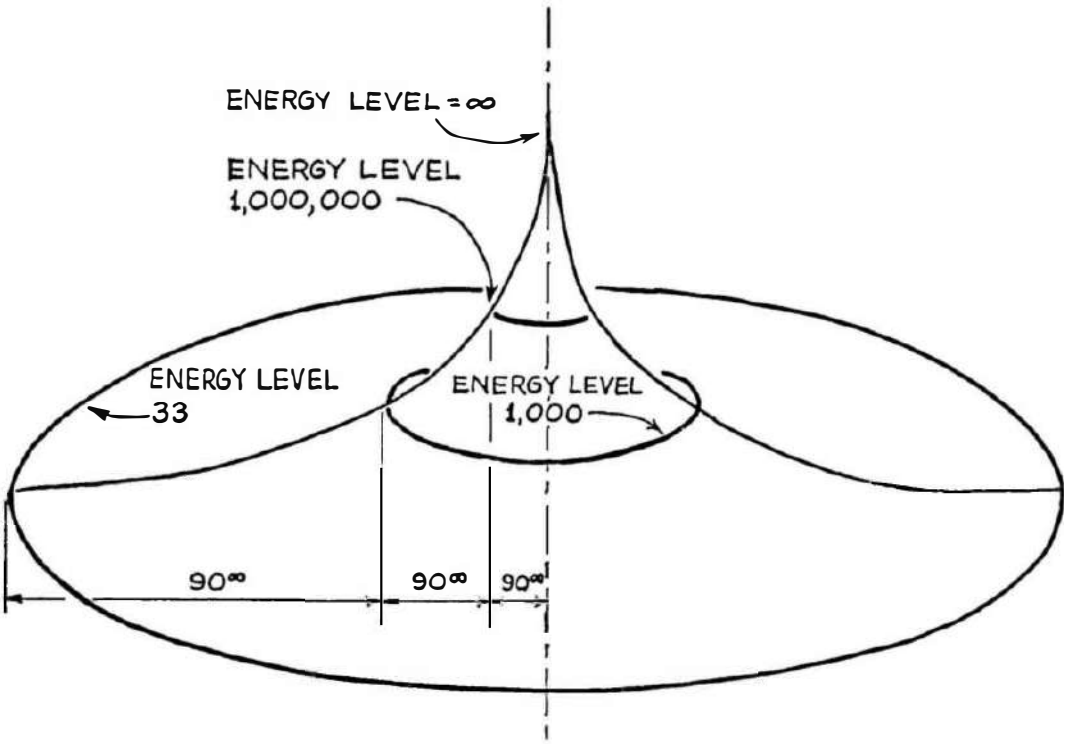
A body entering the Solar System at less than orbital velocity passes through the Solar motive field at a hyperangle where centripetal pressure exceeds the centrifugal waves. As a consequence, energy is transferred by fine wave-particle collisions from the Solar field to the adventitious body until the intruder is accelerated to orbital velocity or else falls into the Sun, whichever comes first. Therefore, every interstellar object that falls into Solar orbit must result in an increase in the radius of all the established orbits. In other words, the Earth must drift away from the Sun when the Solar System passes through a trashy region of the Galaxy, as was discussed in the chapter "Beyond Velikovsky," in *How To Build A Flying Saucer.* This is why Bode's Law is realized by a rough approximation, with every planet exhibiting some disorder. The Solar System has a lot of action on its time scale.

A body entering the Solar System with more than orbital velocity will pass out of the system unless collisions reduce its momentum to the field average.

Now, if the Solar System were reduced to the scale of an atom, the dynamics described in the two preceding paragraphs will be undistinguishable from opposite charges attracting each other and similar charges repelling each other. Keep this in mind when you read how atomic physics is explained in terms of velocity differentials.

As velocity is reduced over the span of a hyperoctave, field energy is reduced by the square root exponent. Each lower hyperoctave extends twice the distance of the higher hyperoctave. Therefore, a succession of fields extending through hyperspace presents two simultaneously crossing functions so that the span of each square root extends twice as far as the field on one side, and half as far on the other side. As a result, field acceleration jumps to astoundingly high energies as field center is approached, while remaining constant for vast distances over the outskirts.

The way factors and exponents accelerate an energy curve can be illustrated by generating a series defined by a factor of 2. If the central hyperoctave is assigned a value of 1,000,000, the very next hyperoctave will have a value of 500,000 and the third will be 250,000. In a series generated by an exponent of 2, a central value of 1,000,000 is followed by 1,000, and the third hyperoctave in the continuous series is defined by merely 33. The value of 33 covers four times the radius and 16 times the area of the value defined by 1,000,000. The fourth hyperoctave is defined by 5.5 and covers four times the area of the one defined by 33. Since field acceleration can be detected only at 90^{∞} intervals, the finding that the electromagnetic acceleration is 1,000 times



LOGARITHMIC DIAGRAM (NOT TO SCALE) ILLUSTRATING HOW RAPIDLY FIELD VELOCITY IS ACCELERATED AS THE CENTRE IS APPROACHED

more powerful than gravity and that the nuclear force is 1,000,000 times more intense than magnetism can be understood without a parade of scientific mystery.

At the radius of the Earth's surface, orbital velocity in the gravitational field is 18,000 m/h. The rotational velocity of the surface of the Earth is 1,000 m/h. Therefore, the weight of a material mass on the Earth's surface can be understood to represent the function of the difference between its proper velocity and orbital velocity. Now you know the difference between weight and inertia.

As a body on the Earth's surface is accelerated to orbital velocity, its weight vector is rotated around 90° so that it is accelerated around the Earth instead of falling into it on the Terrestrial radius. This 90° of rotation, as a function of velocity, brings the massive material body into another dimension where its weight disappears relative to the Earth frame of reference. In this higher-velocity space, mass is measured by its resistance to acceleration, rather than by weight.

As an orbiting body is accelerated to the velocity of light, its direction rotates around another 90°, proceeding toward a radial trajectory from field

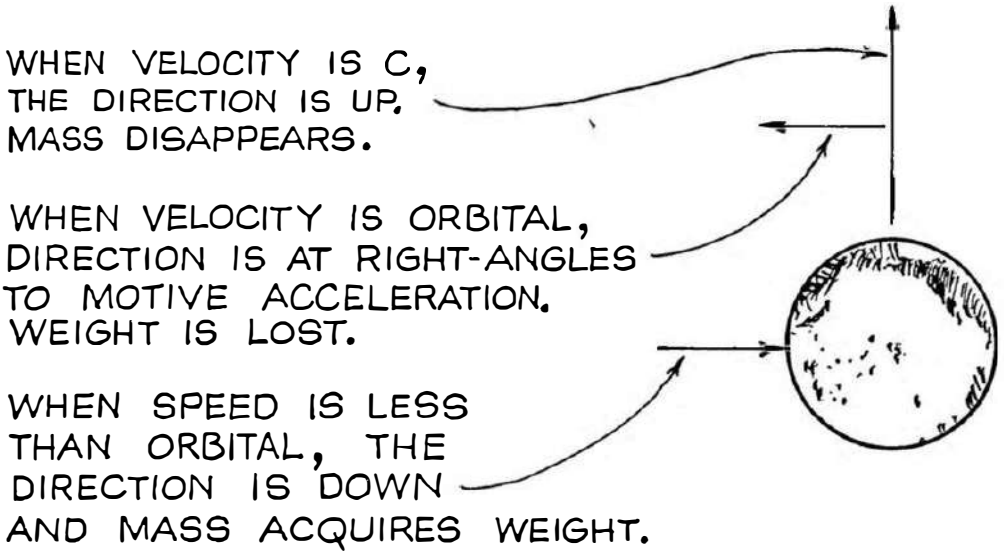


DIAGRAM ILLUSTRATING LOSS OF MATERIAL DIMENSIONS THROUGH SUCCESSIVE ORTHOROTATIONS OF THE GRAVITATIONAL FIELD.

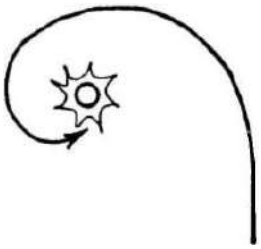
center. This second orthorotation elevates the material to a still higher dimension where another of its parameters is lost to detection from Earth frame. At *c*, a massive volume is transformed into a packet of photonic plane particles. *c* is the velocity coefficient of the Unified Field equations that defines a hyperangle congruent with field radius, and this is why light always radiates from its point of emission.

Each time velocity doubles, energy is squared. The 1,000:1 ratio between the magnetic field and the gravitational field represents the number of times velocity is doubled between the two fields and the number of sonic hyperoctaves between them.

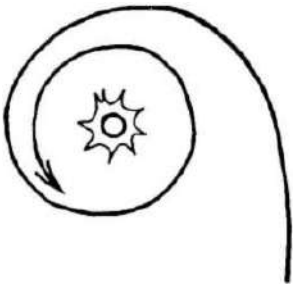
Once you see how rapidly exponents change the acceleration in the central regions of a field, reaching infinity in the center of every atom, you can understand that slow moving electronic particles will drift toward an atomic nucleus as if attracted by an opposite charge. In fact, the atomic nucleus is a low pressure sink in the electromagnetic field, and all field equations are equivalent to the equations governing the dimensions of a low-pressure vortex.

But as a proton approaches the central region of an atom, the proton appears to be repelled. The proton is 2,000 more massive than the electron, so its proper energy overwhelms the electromagnetic shells of the atomic field, giving the illusion that protons bounce away from atoms. What actually

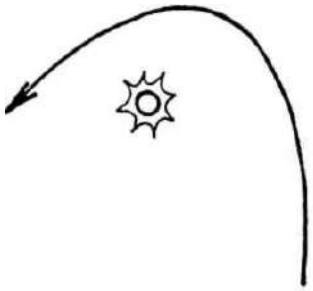
VELOCITY DIFFERENTIALS RESEMBLE CHARGE DIFFERENTIALS



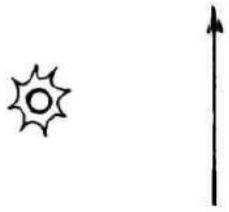
A BODY ENTERING A FIELD WITH LESS THAN FIELD ENERGY FALLS INTO THE CENTRE OF THE FIELD.



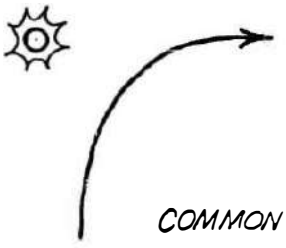
A BODY ENTERING A FIELD WITH FIELD ENERGY FALLS INTO FIELD ORBIT.



A BODY ENTERING A FIELD WITH MORE THAN FIELD ENERGY FOLLOWS AN OPEN CURVE AROUND THE FIELD CENTRE.



A BODY ENTERING A GRAVITY FIELD AT C PASSES STRAIGHT THROUGH, AS LONG AS ITS VELOCITY IS NOT RETARDED DURING PASSAGE.



A BODY ENTERING A GRAVITY FIELD WITH A VELOCITY EXCEEDING C IS DEFLECTED AWAY FROM FIELD CENTRE. A BODY TRAVELLING AT 2C TURNS AWAY BY 90°.

COMMON MATERIAL REBOUND IS DUE TO A 4C DIFFERENTIAL

A GRAVITATIONAL FIELD FUNCTIONS AS A LENS. FIELD REFRACTIVE INDEX IS A FUNCTION OF WAVE VELOCITY DIFFERENTIAL

ANTIMATTER IS DEFINED BY A VELOCITY OF 2C SO ANTIMATTER IS REFLECTED AWAY FROM OUR SPACE AT THE EVENT HORIZON. BEYOND THE EVENT HORIZON, ANTIMATTER EXTENDS 180°.

happens is the generation of a shock wave by the energy differential between the proton's field and the atomic electromagnetic field. A bullet generates a shock wave in the air, but because a bullet is such a small object, it can penetrate the aerial field; a propeller-driven aircraft at the same speed is stopped by the aerial field as if it were bounced off a wall. Likewise, extremely fine particles of high velocity can penetrate the atomic field, but large protons bounce away. If an aircraft is given sufficient power by a jet engine, it will penetrate the shock wave even as it generates it. Likewise, a proton accelerated to sufficient velocity will penetrate the electromagnetic shells of an atom and smash the nucleus. Once a proton approaches the central region of an atom where orbital velocity exceeds the proton's proper energy, the proton falls into nuclear orbit, and physicists are presented with the illusion of a mysterious nuclear force appearing suddenly within the positively charged shell that is believed to surround protons.

The concept of charge is a mistaken fiction. The fiction is not valid without the concommitant concept of polarity. Neither the nuclear force nor the gravitational force manifests polarity in ordinary experience. The phenomenon of similar bodies tending to cluster together can be explained by so many different fictions that we have license to pick and choose among alternative theories. This Unified Field Theory, based on the principle of velocity, is presented as a fiction as comprehensive as science needs at this time.

Although the manifestations of charge are illusory, charge is a useful fiction as long as one remembers what the symbols refer to. In this case, the terms and equations of the calculus of charge are readily translated into the terms and equations of the calculus of hyperspace. In charge theory, the angular distance separating the spin axes of charged bodies is a function of charge. In hyperspacial geometry, the differential of the opposing axial angles is a function of the velocity differential.

All bodies belonging to their proper field/dimension must spin in the same direction on axes aligned 90° to the wave flow of their field. Therefore, all bodies belonging to the same field will possess a neutral charge relative to the field and a similar charge relative to each other. These fluid dynamics explain why the planets maintain the greatest possible average distance between themselves, as Velikovsky pointed out and every astronomer knows.

A particle/body with a proper velocity exceeding the region of the field in which it is measured has a spin angle in the same quadrant as the primary defining the center of the field. Therefore, the particle/body has greater momentum than the field at that radius, and the particle/body appears to be

expelled by a like charge. A particle/body with a proper velocity less than its field location has a spin angle in the corresponding quadrant from the central region, so the particle/body seems to be attracted by opposite charges.

A field is a standing-wave structure. Standing waves expand to the limit of their space, like a perfect gas, and the pressure differentials push all particulate nodes apart until they are equally distant from each other. These fluid dynamics look exactly like particles with the same charge repelling each other. The expansion of a field to fill its space without a pressure differential (a state of maximum entropy) results in atomic space being divided into exact whole numbers of quantum units.

Electrons are pushed by their field pressure toward a proton because, to an electron, a proton "looks" like a sink-hole. But as soon as the electron approaches the proton closely enough to reach *c*, the electron's axis reaches 90° relative to the protonic field, and as soon as the electron begins to move into the proton's field quadrant, the proton "pushes" back. The electron is squeezed into a tangent orbit around the proton as planets are squeezed around the Sun. The electron shells are defined at harmonic intervals, like planetary orbits, and the least stable harmonic intervals define the orbits of excited electrons that are out of their ground state.

On this side of the *c* orbit, an electron is in the particle state relative to the observer. On the other side of the *c* orbit, the electron is transformed into waves. Every experiment with electrons must include some from both sides of the *c* limit. It is impossible to measure the same electron twice because the operation of measurement alters its velocity. Therefore, some experiments will measure wave electrons while others measure particle electrons, and there is no way to define the hyper-c wave electrons. Instead of conceiving electrons to possess both wave and particle properties, suppose that a mixed bag of electrons will include some that are waves and others that are particles.

Since all particles detectable to us are transformed into waves at the *c* orbit, it follows that no particles can exist in atomic space, where we conceive particles to exist. It isn't until velocity accelerates around three dimensions past the electron, full 360^{∞} from the observer, that incredibly dense particles of *second matter* reappear. The illusion of particles existing during the three-quarter hypercycle between the center of the atom and the electron is created by the twist in the line of sight as waves emerge from the atom into our dimension.

The electric vector that generates the magnetic field is detected only by its effect on electrons, so there is a quarter-twist in the operation of measuring the electric field, and it cannot be experimentally separated from the magnetic

field. As a result, the electromagnetic field yields a single constant. The nuclear field, on the other side of the electric field, is measured through a further half-twist, and since it cannot be detected except by its effect on particles traveling below the *c* limit, there is no mathematical difficulty in uniting the nuclear field with the electromagnetic field. It is practically impossible to keep them separated. Gravity proves refractory to the unified field equations because it is measured by different means, aiming in a different direction through hyperspace. And thus you can see how sound evidence can mislead wise men to an impasse.

The pressure of a field will inevitably result in all of its particles being evenly distributed throughout hyperspace. As a field "gas" expands toward the antipodes of hyperspace, the spin axes of the particles rotate around 180°. A 180° degree flip not only reverses the charge but also transforms a particle into its antiparticle. Antimatter exists between the exact moments when our material reality is in existence. And this makes it obvious why antimatter is so rare in these frumptious parts.

The most advanced physicists in the Invisible College have deduced that atomic particles appear to be monopoles because their opposite poles are wrapped up inside them. They calculate that the wrapping follows the half-twist of the Möbius Strip and the Klein Bottle. The half-twist is an extension of the six-dimensional particle from here to the antipodes of hyperspace; there is a continuous hyperextension of a particle in this reality with its antiparticle. The atom is an "electronic monopole" with its opposite pole wrapped inside itself.

An uncharged material molecule establishes zero velocity in this reality. A molecule is created by the harmonic integration of three fields: the electric, the magnetic, and the motive. The three fields represent three dimensions. The electric and the magnetic vectors are perfectly balanced, so the only field that responds to acceleration is the motive. Therefore, the molecule behaves as if it were a gravitational monopole. By accelerating a molecule until its velocity exceeds orbital velocity in its ambient gravitational field, it will travel away from the center of its ambient gravitational field as if propelled by antigravity. Therefore, by accelerating a molecule, its gravitational charge is reversed.

An orbital velocity of *c* defines the outer limits of the atomic scale. Since one dimension is lost when crossing over the *c* limit, it follows that no more than two fields can be detected within the atom: the magnetic field and the electric field. The nuclear field is not detected, but calculated.

In fact, the mutual repulsion of electrons in the electronic field is exactly the same as the mutual repulsion of molecules in a gas. If we conceived molecular gas in the same way that we conceived atomic particles, we would have to attribute a fictional antigravitational charge to molecular gases. But as long as the concept of charge is believed to inhere as an essential property of the particle instead of being the effect of velocity, a prohibition is raised against the perception that the behavior of electrons is identical to the behavior of molecular gases. Electrons move toward protons simply because there are fewer electrons in that direction, not because the proton has an attractive charge. Molecular gases move to the walls of their confinement because of gas pressure, not because of any attractive opposite charge inherent in the crystalline material of the containing walls.

Because of these misconceptions, electrons and protons are perceived to behave as if they were opposite-charged electric monopoles. The concept of charge is a useful fiction, but it must go the way of phlogiston to be replaced by velocity gradient. Practical electronics already conceives *charge* as a pressure gradient by realizing that a less negative charge (less pressure) behaves just like a positive charge.

From the material body defined at zero velocity, its fields accelerate in both hyperdirections. Field velocity outside a material body can be called positive (to establish a convention), and field velocity inside a body can be called negative. After 90^{∞} of acceleration in each direction, a material body is transformed into its wave phase. The negative wave phase of material is the electron at *c;* the bodies orbiting in a gravitational field constitute the positive wave phase. After 180^{∞} of acceleration, material bodies are transformed into their antiparticles. The negative antiparticle is an antiproton; the positive antiparticle is made up of material bodies with a centrifugal radial velocity of *c*. (At the event horizon, all material bodies disappear from this reality because they are transformed into gravitational anti-bodies.) After 360^{∞} of negative acceleration, the material molecular body returns to this reality in the form of a superdense nucleonic particle (the baryons). In the positive direction, 360^{∞} from the material bodies familiar to us, there is the superdense neutronic cores of stars, never to be seen through their plasmic photospheres.

Now we are ready to plot the empirical data on the spiral field equation to correlate the theoretical structure with the solid data.

The center of an atom is occupied by a node of superdense second matter held together by a centripetal flow of elementary electric particles. 90^{∞}

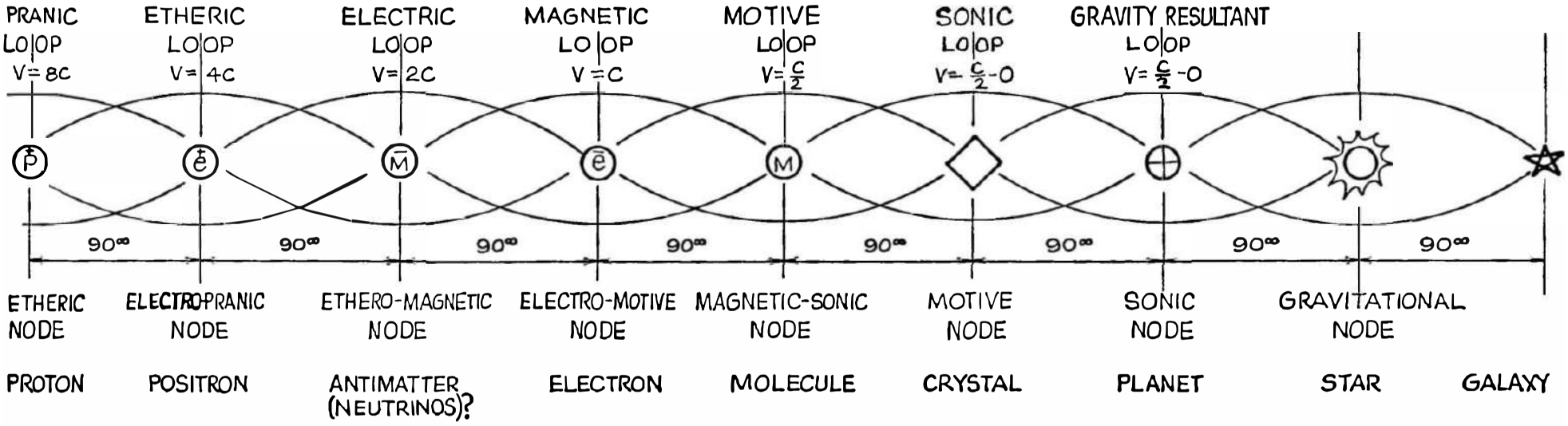


DIAGRAM LOCATING PARTICLES ON THE SCALE OF FIELDS

NOTE THAT THE NODAL POSITION ESTABLISHES PARTICLE PROPERTIES
WHILE THE CONCURRENT LOOP POSITION PROVIDES THE DYNAMIC (WAVE AND FREQUENCY) PROPERTIES.

THE DIAGRAM READS THAT PHOTONS ARE MASSLESS ANTIPARTICLES WITH VELOCITIES BETWEEN C AND 2C.

NOTE THAT A VELOCITY OF 4C IS EQUIVALENT TO AN ELECTRON WITH A VELOCITY OF C IN THE OPPOSITE DIRECTION. THE PROTON'S VELOCITY OF 8C IS ALL SPIN. RELATIVE TO THE MOLECULE, THE VELOCITY OF 8C IS EQUIVALENT TO ZERO VELOCITY AFTER 360° ROTATION AROUND HYPERSPACE. AS A RESULT, THE PROTON IS MANIFEST AS A MASSIVE PARTICLE WITH A POINT LOCATION. IN TIME. AFTER FOUR ORTHOROTATIONS, THE PROTON LOSES THE THREE EXTENSIONS IN OUR MOLECULAR SPACE. A PROTON, THEREFORE, IS A PURELY MENTAL PARTICLE. TO BE MORE EXPLANATORY, THE PROTON IS THE GATE THROUGH WHICH PRANIC MIND FLOWS INTO THIS REALITY, ACQUIRING EXTENSION IN THREE DIMENSIONS (TO US) AS VELOCITY IS LOST.

from the center, there is a shell of leptons that, as currently conceived, function as gluons and other fictional particles (created to balance the accounting of energy transformations). 180^{∞} from the atomic center defines the location of antimatter; antimatter marks the inner limit of our cosmos.

Antimatter is located at the loop of the electric field, which is also the inner node of the magnetic field. 90^{∞} from the loop of the electric field, we come to the outer node of the electric field, which defines the location of the electron at the magnetic loop.

Since the space between the nucleus and the electrons is defined by both the electric and the magnetic vectors, the atom is truly bound by the electromagnetic field. But outside of the atom, the field is only magnetic.

The valence bond between atoms occurs during the 45^{∞} of the magnetic field extending on this side of the atom. The valence phase is half the strength of the intra-atomic phase. Therefore, valence bonds are half the strength of the electromagnetic bond, and interatomic electrons have enough kinetic energy to move around as a plasmic fluid.

The attraction between ions is an illusion created by the magnetic axis of one atom being rotated relative to the magnetic axis of the other atom, generating a space of lowered interelectronic pressure between them. The maximum strength of the valence bond is reached when one atom is flipped, relative to the other. Atoms are quite complex structures, however, so the valence bond is the integration of harmonic accelerations; 180° of magnetic potential rarely occurs, with the probable exception of diatomic hydrogen.

The molecule is bounded by shells of atomic electrons. Therefore, polymers are held together by the magnetic field, like overgrown molecules.

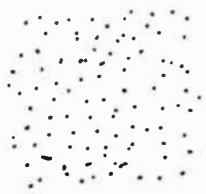
The magnetic field surrounding the molecule rotates into the motive field after another span of 45^{∞}. Molecules are bound into crystals by the motive field. A snowflake and a planet are both crystals in the same dimension, but the planet is a crystal on a cosmic scale.

The motive field rotates into the true gravitational field 45^{∞} from the crystal. Sound we hear is motive/gravitic waves. Sound we emit is antigravity waves.

The internal vectors of the atom are repeated on a larger scale to construct planets and stars. Extrapolation from atomic structure enables us to deduce the interior geometry of planets and stars. We now have a revolutionary cosmology.

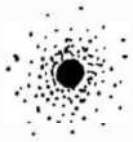
Particle velocity accelerates exponentially as the field center is approached. Therefore, particle velocity increases as space is packed to increasing density, and waves transmitted through space as the periodically alternating resultant of random particle motion are propagated with acceler-

BIRTH AND DEATH OF A PLANET

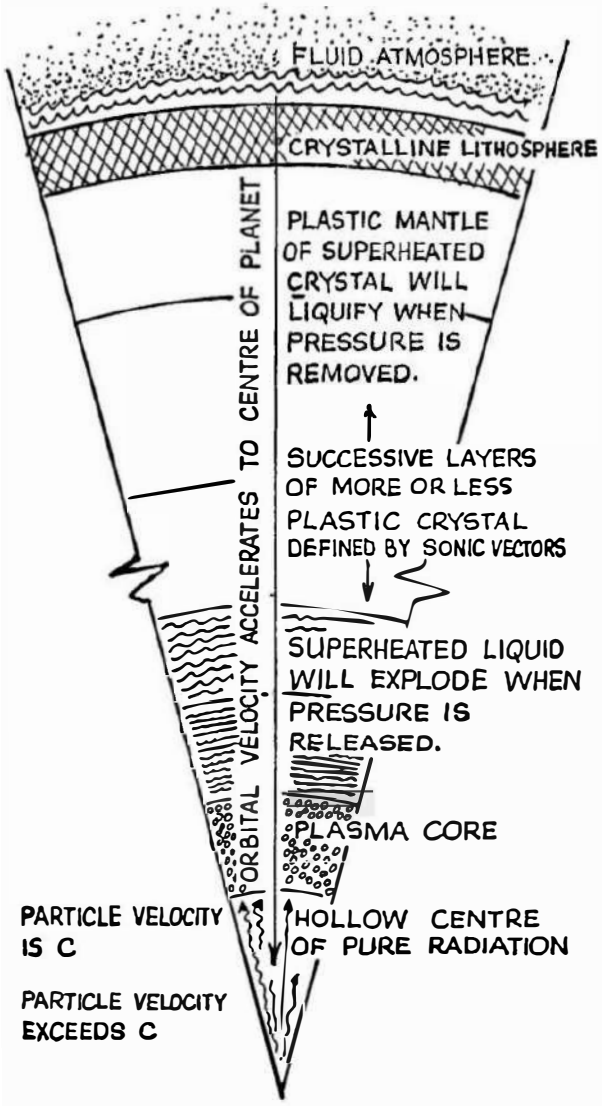


1 WHEN WAVE VELOCITY THROUGH A FIELD OF MATERIAL PARTICLES IS LESS THAN PARTICLE VELOCITY, THE PARTICLES EXPLODE AS A GAS.

2. WHEN ORBITAL VELOCITY IN A FIELD EXCEEDS PARTICLE VELOCITY, THE GAS CONDENSES INTO A ROTATING CLOUD.



3. WHEN PARTICLES ARE PRESSED CLOSELY ENOUGH FOR FIELD VELOCITY TO EXCEED VELOCITY WITHIN THE PARTICLES, THE CLOUD FUSES INTO A PLANET.

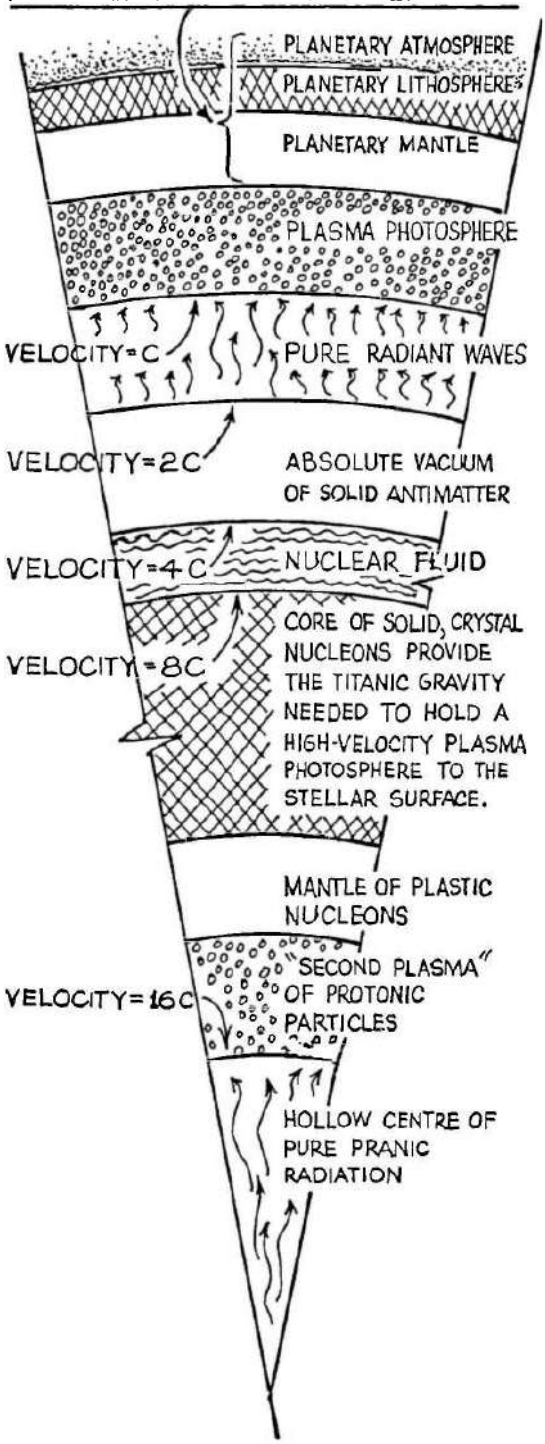

FLUID ATMOSPHERE
CRYSTALLINE LITHOSPHERE
PLASTIC MANTLE OF SUPERHEATED CRYSTAL WILL LIQUIFY WHEN PRESSURE IS REMOVED.
ORBITAL VELOCITY ACCELERATES TO CENTRE OF PLANET
SUCCESSIVE LAYERS OF MORE OR LESS PLASTIC CRYSTAL DEFINED BY SONIC VECTORS
SUPERHEATED LIQUID WILL EXPLODE WHEN PRESSURE IS RELEASED.
PLASMA CORE
HOLLOW CENTRE OF PURE RADIATION
PARTICLE VELOCITY IS C
PARTICLE VELOCITY EXCEEDS C

AS A PLANETARY MASS GROWS BY THE ACCRETION OF INTERPLANETARY PARTICLES, GRAVITATIONAL PRESSURE INCREASES THE WAVE VELOCITY ON A GRADIENT THAT ACCELERATES TO THE CENTRE. ENOUGH PLANETARY MASS WILL RESULT IN PLASMA FORMING IN THE PLANETARY CORE. EVENTUALLY, GRAVITATIONAL VELOCITY REACHES C. AT THE C POINT, PLASMA BECOMES PURE RADIATION. WHEN THE PRESSURE OF RADIATION EXCEEDS THE PRESSURE OF GRAVITY AND THE COHESION OF THE MANTLE AND THE LITHOSPHERE, THE PLANET MUST EXPLODE INTO SHRAPNEL, PLASMA AND A FLASH OF RADIANT ENERGY.

AN INTERPLANETARY INTRUDER COULD HAVE PRECIPITATED KRYPTON'S EXPLOSION. JUPITER HAS PROGRESSED ON THIS GROWTH FOR ITS INNER RADIATION TO REACH ITS SURFACE BY CONDUCTION.

BIRTH AND DEATH OF A STAR

THIS PLANETARY SHELL IS BLOWN AWAY TO REVEAL A STAR IN ITS CORE.



IF A PLANET ACCUMULATES A MASS GREAT ENOUGH TO CONTAIN ITS RADIANT CORE UNTIL NUCLEONS CAN CONDENSE, IT GROWS INTO A STAR.

WHEN THE PLANETARY SHELL EXPLODES, PLASMA BENEATH THE MANTLE IS HELD TO THE SOLID, CRYSTALLIZED NUCLEONIC CORE BY ITS INTENSE CENTRIPETAL FIELD, LIKE ELECTRONS ARE HELD BY ATOMS. THE PHOTOSPHERE RADIATES LIKE CONTINOUSLY EXCITED ELECTRONS OF A COSMIC, SUPERHEAVY, RADIOACTIVE ATOM.

AS THE STAR CONTINUES TO GROW, ITS INTERIOR STRUCTURE REPLICATES ATOMIC STRUCTURE, AND THE PRESSURE GRADIENT THAT RESULTS IN PLANETARY EXPLOSION IS REPEATED ON EXPONENTIALLY HIGHER VELOCITIES.

THE CORE OF A MASSIVE STAR BECOMES HOLLOW, CONTAINING RADIANT WAVES DEFINED BY VELOCITIES IN EXCESS OF 16 C.

EVENTUALLY, THE NUCLEONIC, SOLID CRYSTAL OF THE STAR CANNOT HOLD THE TITANIC PRESSURE OF ITS PRANIC CORE, AND THE STAR EXPLODES.

A SHOCK WAVE OF NUCLEONIC SHRAPNEL AND RADIANT ENERGY WITH VELOCITIES UP TO 32 C BLASTS THE MAGNETIC FABRIC OF THE GALAXY. MORE ENERGY IS RELEASED BY THE SUPERNOVA THAN BY THE ENTIRE GALAXY.

A SUPERNOVA IN OUR GALAXY WOULD VAPOURIZE US IN AN INSTANT.

A SUPERNOVA CANNOT BE DETECTED UNTIL ITS SHOCK WAVE SLOWS TO 2C.

A SUPERNOVA IS THE REAL "BIG BANG."

AS A FIELD CONDENSES, ITS STUCTURE ALTERNATES IN LAYERS OF CRYSTAL, FLUID, AND RADIATION BECAUSE RESULTANT VELOCITY REALLY ROTATES 90° AS A FUNCTION OF DOUBLING/HALVING SPEED. THEREFORE, SOLID CRYSTALS RECUR AT 360°° INTERVALS BETWEEN LAYERS OF CENTRIFUGAL RADIATION. TANGENT RESULTANTS ARE MANIFEST AS FLUID LAYERS.
THE ROTATION OF VELOCITY AS A FUNCTION OF SPEED CAN BE SEEN IN THE REGULAR RECURRENCE OF PLANETARY ORBITS AROUND THE SUN.

ated velocity as space is packed to higher densities. It is plain to see why the velocity of sound increases as air pressure increases. The velocity of sound through solid crystals is exponentially faster than the velocity of sound through liquids and gases. When the velocity of sound increases to c, the sound wave is transformed into an electromagnetic wave, and the piezoelectric effect becomes manifest.

The equivalence of pressure with velocity reveals that the transformation of one field to another can be calculated as a density gradient yielding the same spiral equation generated by a velocity gradient. Calculations made from the perspective of density also reveal the interior structures of atoms, planets, and stars.

Weight decreases as velocity increases from zero. At orbital velocity, weight is zero. At c, material mass is zero. Therefore, the pure, absolutely empty vacuum of space is equivalent to particles packed so densely, at such high velocities, that their tangible effect on our material sensors is zero. *The absolute vacuum is equivalent to the atomic nucleus*. This is why the vacuum presented Classical physicists with the rational paradox of manifesting the properties of infinite density, infinite elasticity, and zero viscosity without having any substance. The vacuum is an infinitely solid, nucleonic, superconducting, universal crystal! The vacuum is antimatter! This figures. If absolute material is infinitely dense, absolute antimatter must have zero density. Antimatter is, therefore, a perfect vacuum.

The intertia of the vacuum multiplied by c^4 yields the energy that can be released by stimulating entropy in absolutely empty space. This energy is equivalent to the energy that could be released by splitting the proton with a chain reaction. Compared to $e = i2c^4$, Einstein's $e = mc^2$ looks like the wink of a firefly.

Current industrial research concerning fusion reactors is a misdirection of funds. It's the same as trying to get more efficiency out of chemical fuel by building larger furnaces, supercharged with pressure injection. While professional research is burning money, thousands of amateur physicists in America are experimenting with coils and crystals to develop a technology for tapping the infinite and nonpolluting energy of the vacuum. (The Nobel Prize has already been nominated for such a mathematical theory.) Energy is released from the vacuum by constructing crystal-circuits possessing useful properties of resonance. The most necessary property is superconductivity at normal temperatures, in order that infinite voltage can be contained without vaporizing the material. The human body is an organic crystal capable of transitory

tuning to superconductivity. The energy of life is extracted from the universal vacuum, and future technology will develop a translation of biophysics into industrial machinery. The first official creation of organic superconducting crystals is reported in *Scientific American* (July 1982). The manifest fact that the human body *does* live on vacuum energy is proof that technology *can* duplicate the operation.

Unlike radioactive atoms, crystals are within the purchase of every American who isn't squeezed by current bank interest rates. Therefore, these people are in a position to get in on the ground floor of another revolutionary industry that the world hasn't seen since Tesla electrified the planet.

Regardless of size, bodies in space—whether they are molecules, dust, or rocks—possessing greater kinetic energy than the orbital velocity of the field/dimension they occupy will behave as a gas, apparently repelling each other as they accelerate to the limits of confinement.

In any given volume of randomized space, the average kinetic energy of half the number of bodies will exceed field velocity while the kinetic energy of the other half will be less than field velocity. As a consequence, half the bodies will appear to explode toward an event horizon at the outer antipodes of hyperspace while the other half will appear to implode into the inner antipodes. And there you have it, all you Big Bang gaugers, the most efficient accounting for the Red Shift: the cosmos presents the apparent paradox of a steady state explosion.

On the atomic scale, half the number of particles are also accelerating above orbital velocity while the other half are falling below orbital velocity. This continuous interchange of energy is manifested in the light by which we see the tangible world. When the sum of transformations on the electric field reaches the nucleus, half the nuclear particles begin to accelerate to escape velocity, and the atom enters a state of radioactive decay. Outside of the artificial and unstable excitation of atoms, noticeable radioactivity must increase as the atom becomes heavier. The constancy of radioactive half-lives is self-evident once this process is understood. Eventually, even the proton must decay.

Actuaries find that all natural processes accelerate by the same factor of 2. You grow into this reality from hyperspace as the balance of the two-way flow of particles is tipped toward the direction of materialization. Your growth to maturity is a wave function of a reducing half-life, from conception to adolescence, followed by an increasing half-life to full maturity. At maturity, the half-life of your corpus is infinite. During the rest of your life, the cycle

reverses, and your half-life is reduced with a velocity that becomes infinite after death and cremation or burial. It is the statistical equation of the half-life that establishes the lifespan at double the age of maturity. We can infer, therefore, that the American way of life, with all its violence at home (where it belongs) and on the streets, has reduced natural hazards to a negligible factor in the statistics of the biological process. If we are bound and determined to increase lifespan, the time to start is at conception—or as near as we can get to the lovers' embrace—in order to retard the acceleration of the half-life wave.

When kinetic energy drops to orbital velocity in a gravitational field, bodies condense from the gaseous state into organized systems that manifest the properties of liquids. The Solar System is a drop of cosmic liquid in the Galactic pool. The cohesion of liquids and surface tension is a manifestation of the field defined by the gravitational quadrant. Surface tension and liquid cohesion differ from the more familiar acceleration of gravity because the proximity of molecules in the liquid state brings them where the illusion of electric charge appears. But as long as surface tension is defined within the gravitic quadrant, liquids fall down, whereas gases and ions don't. The heat of condensation is released by the sudden loss of proper kinetic energy when a body drops into a gravitic node.

Within a gas, liquid and solid phases form and dissociate constantly, but these anomalous phases are so transitory that their existence is not noticed unless most of the molecules possess a velocity close to the average kinetic energy and the three phases exist close to the average energy level. In a sealed pot of water heated to the boiling point, half the water molecules are in steam while the other half are in liquid, and the two halves are continuously changing so that gas and liquid are a homogenous mixture.

Every substance has a point of temperature and pressure in combination where gas, liquid, and solid phases can exist at the same time. This is the *triple point*. Catalyzed chemistry makes it possible for the triple point to occur at normal pressures and temperatures in complex crystals. Living organisms are complex crystals containing gaseous, liquid, and solid phases at the triple point of continuous exchange.

Once life is defined as a crystal at the triple point, it become obvious that there must be living creatures on all the planets where complex crystals can form. In fact, all of space—the rocks, the liquids, the gases, and the vacuum—must be filled with transitory life forms evolving on a timestream vastly different from our own. The complexity that a crystal reveals is a function of its scale relative to the resolving power of the observer.

A molecule has a solid phase at its core, a liquid phase in the form of fluid electrons, and a gaseous phase in the form of a continuous flow of photons; all phases of molecular space are in a continuous state of exchange. Therefore, life exists within molecules and within atoms. So treat your pet rock with tender loving care, or else you are liable to attract the interest of the SPCA. It is alive.

When kinetic energy drops below orbital velocity in the motive field, the material crystallizes. When kinetic energy drops to orbital velocity in the magnetic field, interelectronic Cooper pairs form and the material becomes superconducting.

Intelligence is a manifestation of field. As proper kinetic velocity drops to zero on successive dimensions of field, orbital velocity increases. As a consequence, your consciousness expands to higher dimensions while your body loses random heat. The dimensions of emotional experience are located in the motive field, so emotions are *hot;* conversely, the living field *cools* as the intellect expands into higher dimensions. The highest states of spiritual consciousness are manifest when the body is cooled to superconductivity.

When atoms are cooled until their electrons reach the liquefaction point, the electrons revolve around each other in Cooper pairs. Further chilling causes electrons to fall into their protons—one electron per proton, please, there are exactly enough to go around—and neutrons are born.

Lowering proper velocities, in the process we call chilling, is equivalent to raising orbital velocities by pressure. Therefore, the cores of massive planets and stars are compressed into a state of superconductivity. When the mass is sufficient to compress all electrons into protons, the star implodes to form the incredibly dense material of the neutron star, after all its lighter shells explode into a nova.

Copernicus eliminated all the complexities of geocentric celestial mechanics by raising our point of view from the two-dimensional surface of the Earth to the Sun above, in the third dimension. Likewise, by raising the scientific point of view from the third dimension to the fourth, the infinite plurality of modern science is reduced to a single factor. The future science is based on velocity. The perspective of energy, by any of its several names, eliminates the self-contradictory embarrassments of the wave-particle paradox, the transmission of force over empty space, the limitless proliferation of atomic particles, the decay of matter, the chronic philosophical dichotomy between catastrophe and a steady state universe, the Red Shift, the Black Hole, the Big Bang, PSI phenomena, soul, the categorical separation of mind

from matter, the logical impossibility of change, the engineering of flying saucers, the mechanics of evolution, the concept of God, and the meaning of your life. In short, raising scientific perspective to a higher dimension resolves all the problems stultifying modern science. Yet not a single equation, not a single established fact has been violated. The conventional wisdom remains as true as it ever was, *from its own perspective*. Nothing has been lost except these subjects for learned debates that produce nothing of value. I am sure that intelligent scholars will soon make new employment for their energies by debating the paradoxes and antinomies that develop in the mathematics of hyperspace. Once we get enough refractory data to substantiate another perspective, another maverick will raise the perspective of philosophy to the fifth dimension, and human consciousness will take another turn like an orthogonal wheel.

10
TRINITY

What is Salvation? And how do you buy a ticket on the Heaven Express?

Every material body is a nodal point, a gate beween two hyperspacial fields. An external field evolves in one direction of spin, and an internal field involves from the opposite direction of spin. The material reality of the present instant is the nodal crossover point in the universal field.

The nodal patterns in the externally evolving field have the same structure as the nodal patterns in the internal field. The internal field and the external field mirror each other on all axes of generation.

The external field is experienced as culture, material reality and higher dimensions of social consciousness. The internal field is experienced as our individual minds and our instincts.

The material dimension of the human field is the inert material of the body. The sonic dimension of the internal field is perceived as the animating force, and is expressed in stereotyped behavior, and instinctive, mechanical, unreflective and unconscious responses to material (tactile, aural and chemical) contacts with the environment. The electronic dimension of the internal field governs cognition and responses to what we see. Automatic responses to unseen electromagnetic vibrations in the environment are experienced as emotional reactions to events "beyond reason." Bear this in mind if you happen to live close to high-tension power lines and transformers, because

electromagnetic pollution can affect the workings of your nervous system no less than they jam your radio, T.V., and timepiece. Reflective thought, reason, and foresight are conveyed by the electric field and sensed in the light of the Inner Eye.

I'll bet you have always wondered what the Third Eye is. According to mystics, the pineal gland in the center of the brain functions as a third eye. Unable to find any lens in the pineal gland, anatomists conclude that the third eye is a delusion. But whether or not the pineal gland functions as a third eye, we know that a vitreous tissue of a lenticular form is not the only way to make a lens. A diffraction grating also functions as a lens, as do the swirls of a hologram. In fact, the convolutions of glandular tissue are the very model of a hologram, and the pineal gland could function as a third eye, no less than the brain.

You know the organ of vision is not the eye, don't you? It is the brain that sees. The eyes serve only as radio antennae to gather a stronger signal tuned to light. If you talk to blind people, especially blind, bright children, you will be told that they perceive visual images, and some freaks make a living by performing stunts like driving blindfolded. Some blind people ride bicycles—that is what made me take notice.

It is a fact of high-school biology that insects see the world in replicated images, an image from each of their multiple, fixed-focus eyes. This fact is as naively fallacious as the Flat Earth. Insects don't need a variably focusing eye, as we do, because each of their facets is of such a short focal length that their hyperfocal distance is within touch of their antennae.[1] All the replicated images from insects' multiple lens are brought to a common focus in the visual center of their brains in the same way as the images from our two scanning eyes are fused by our brain into a single stereo image. We need scanning eyes in order to see through time; our scanning is correlated with a sense of before-and-after. Insects respond to the instant, so they don't need to scan.

The Third Eye is an advanced development of our scanning faculties. The inner eye has an ability to fuse an indefinite number of stereo images into a single hyperstereo image. What is a hyperstereo image? It is an image revealing a continuity through time as its successive facets are scanned. Where does the inner eye look to see a succession of instants simultaneously? As the inner eye opens, it is able to receive radiation from a widening angle of

[1]You must know enough phsyics to realize that the eye is an antenna, like insects' antennae, that literally palpates the electromagentic field surrounding every material object.

the quantum field, where past and future realities exist, to be seen as stereo images parallel to the magnetic image of the present material reality, defined by a magnetic wave velocity of 186,000 miles per second. We call the hyperstereo image of the inner eye, "imagination," "foresight and hindsight," "artistic visualization," "calculation," "hunch," and when the culture cannot account for the experience, "hallucination." When Mozart asserted that he perceived an entire symphony as an instantaneous structure, only requiring writing down, he was describing a hyperstereo image. The life you see flashing in front of your eyes at the moment of death is a hyperstereo image.

Animals less evolved than ourselves are commonly born with their two eyes closed. We are born with our material eyes open, but our third eye is closed at birth. Most people live their entire lives without opening their third eyes. H.G. Wells' story about the man with one eye in the kingdom of the blind is an allegory about the third eye. In reality, the man who opens his *third* eye is imprisoned or cast out, as Plato told it, not crowned.

The Bible tells us that we shall see the Holy Light when our two eyes become as one. The two eyes referred to in the Bible are not the ocular antenna but the two hemispheres of the brain. Split-brain research has proven that all events occur throughout the right brain at the same time; this means that the right brain sees past, future, and alternative realities. In an earlier stage of human evolution, most people could see in their right brains almost as well as in their left brains.[2] This was the time when people shared the Earth with angels and goblins and chimerae of every configuration. In that precivilized state of human consciousness, however, people couldn't tell the difference between real space and hyperspace, any more than many young children are sure of their "imaginary playmates," what is real, what is Santa Claus, and what is Halloween. Hyperspace has a protean appearance, so to be safe, primitive people treated the creatures of hyperspace with the greatest respect. This is why they built pantheons to pay homage, dump surplus crops, and sacrifice old maids who couldn't fetch a bride price. I'll bet you thought that all those temples were built for imaginary gods. Well, they weren't. In those High and Far-Off Times, almost everyone *really* saw spirits, just as American Indians still do when they adhere to their tribal beliefs. Every house had its tutelary god who gave advice and admonitions. Anyone who didn't see the gods said they did, just like everyone claims to have great orgasms today, no matter how cold it is inside.

[2]Like undecided hand preference in early childhood.

In order to survive on this planet, in competition with all the animals, it became necessary for the human species to learn to perceive reality with the left brain more acutely than every other creature. With the repression of the right brain, the human race left Eden, and that is how civilization got started. Now that civilized consciousness has learned to distinguish between space and hyperspace, it is time to reopen the eye of the right hemisphere. And so, hyperspacial concepts are beginning to appear in respectable literature.

People who have failed to suppress awareness of their right brain, because of some fault in their socializing or some pathology in their metabolism, have always seen hyperspace. But they cannot survive because they cannot distinguish between the real and the unreal. Because the civilized mind has thoroughly repressed right-brain vision, medical people don't know what right-brained visionaries are seeing; visionaries are believed to be insane, and they are suppressed in the name of therapy. Uncivilized medicine men realize that visionaries are still in a state of Innocence, and they call them "holy."

When the vision of your two brain hemispheres fuses, you awaken with a new faculty for perceiving an expansion of reality from the four dimensions of the prevailing state of civilized consciousness to five and six dimensions of hyperspace. You will see past and future as present probable events, appearing as tangibly as seeing your hand in front of your face. This is how Jesus foresaw the betrayals of Judas and Peter. You will also be able to see events occurring at great distances; in a word, the opening of your third eye makes you clairvoyant.

If you think your clairvoyance will bring you a crown from the rest of us commoners, forget it. With everyone in the process of opening their third eyes during the next few generations, God's Kingdom to Come is not going to be another viceregency ruled by an autocrat. The New Earth is going to be a global democracy organized by a hierarchy of ability, not altogether different from America as we know it today, but on a higher dimension of consciousness.

The opening of your third eye is signaled by a sensation of light in your head, expanding throughout your whole body. You can get an idea of what it feels like from the scene in the preview to *Close Encounters of The Third Kind* where the light rises into the dark sky at the end of the road. Concurrently, you will feel a surging of Divine ecstacy—a joy unknown before. The film is actually an allegory intended to introduce this experience to the entire civilized world in preparation for the metamorphosis from mankind to

supermankind. The incipient surge of ecstatic wonder evoked by that scene is the essential attraction of the whole movie.

When your third eye actually opens, you will experience a sensation of your mind being flooded with light and images, which is exactly like the opening of your two material eyes to admit the light. Except that when your third eye opens, you will be able to keep your two material eyes closed and still be able to see all around you. You will also be able to see in the dark. Professor Eugen Herrigal describes how his Sensei saw in absolute darkness, in the classic chronology of his studies in Japan under the title *Zen In The Art of Archery.*

When the Master Morihei Uyeshiba experienced his Enlightenment, his disciple recorded his testimony. "As I was strolling in the yard, the Earth suddenly trembled. Golden vapor gushed out of the Earth, enveloping my body, and then I felt myself turning into a golden body. At the same time, my mind and body felt light, I could understand what the chirping birds were saying, and I understood clearly the creator's spirit."

Rather than being a rare experience of questionable sanity, revolutionary research reported in *Psychology Today* found that Enlightenment is surprisingly common, and the more Enlightened a person is, the greater is his health, happiness, productivity, and social value. One woman recounted her Enlightenment as she was returning home on a bus after a day's work. "The air lightened. The faces of fellow passengers shone with beauty. And I was filled with happiness." Not being a martial artist, she founded no school of combat. Not being religious, she proclaimed no New Church of the Holy Light. Not being crazy, she was very selective about whom she told her experience to. Being quite normal, she continued home to family and supper, as usual.

When your third eye opens, you will also see the ghosts and fairies that terrified precivilized mankind. If you have learned to distinguish between orthodox reality and alternative realities, you will be able to regard the phantasmagoria as playthings, as all creative artists do. But if you peek through your third eye before it is time to open, the sight of hyperspace upon your immature ego will be as traumatic as rape is to a child, and you will be as mad as any other patient in Bellevue. This is one present that you better not force open before your spiritual rebirthday.

All the disagreements in this world are due to each person seeing no more than one view of reality and are due to his belief that his view is more real than everyone else's. It is not possible for mankind to come into universal

agreement before the third eye opens to reveal everyone's point of view to everyone. This was the promise of Jesus Christ.

The internal field of the human body arises from the atomic structure. Since the atomic conformation of your body is determined by your genetic code, your internal field is the creation of your genes. Therefore, the unique intelligence that defines your most personal and individual self is the molecular intelligence of your genetic field.

Conventional wisdom regards molecular intelligence as instinct; this is true. Conventional wisdom regards instinct as blind and crude; but the conventional concept of instinct is one- and two-dimensional. Three-dimensional instinct defines the structure of your body with considerably more intelligence than any scientist. Four-dimensional instinct is as refined as the learned gentlemen who pontificate on instinct. When molecular intelligence draws from the deepest dimensions of nuclear hyperspace beyond the inner event horizon that surrounds protons, instinct becomes identical to the highest intelligence the human mind can produce—sometimes higher, for we call this profound instinct, "Divine Inspiration." Freud gave the term *Id* to the ineffable sensation of genetic intelligence. Mystics call the genetic instinct *Soul.*

In early childhood, uncoordinated behavior and simplistic thought are manifestations of incomplete integration of the genes on the scale of your whole body. Your genes are in a state of evolution, getting their act together after your birth as they were during your gestation. During childhood, your body is like unmagnetized iron, in that your soul field is not coherent. As it is possible for an external field to invade unmagnetized iron and impose a permanent order upon its molecules, the magnetic field of the social consciousness invades your body during infancy and childhood to imprint more or less permanent magnetic domains onto your mind. This induced field is what Freud called your *Superego,* and you are imprinted for life unless you are "cleared" by some psychotherapy or other shock. Psychotherapy and shock are field operations that disintegrate magnetic domains in your personal soul in exactly the same way as annealing to the Curie Point or striking with a hammer dissolves magnetic domains in soft iron.

By the time you reach adolescence, your genetic field has developed and integrated sufficiently for the effects of superconductivity to become evident. To the extent that your body becomes superconductive, it expels the external magnetic field that has invaded your body. This phenomenon of a

superconductive material expelling an external magnetic field has been known, since the discovery of liquid helium, as the Meissner Effect, which is still regarded as a mystery of low-temperature physics. But its mechanism becomes evident by reviewing the Unified Field geometry. A superconductive space is always a nodal point in the field, and a nodal point is the crossover point between the positive and negative loops that flow from one dimension to another. Therefore, all the energy of an externally applied field flows through the nodal point without resistance. Once on the other side, the waves reverse phase. Therefore, the internal field must oppose the external field. Wave velocity is doubled on the inside of the nodal point, and the momentum is squared, so the internal field has no difficulty expelling the external field. No matter how much energy is applied to the external field to force it into the superconducting material, that energy can only be transformed into the internal field, from where it rebounds with exponentially greater power.

Although the Meissner Effect has been a scientific mystery for nearly a century, it is the mechanism of many common psychosocial phenomena. For example, the superhuman power of the Master of the martial arts is the result of his superconductivity to bodily force by virtue of his resonant swings and turns. No matter how forcefully the Master is attacked, the energy that flows through his body is reversed as if by a mirror, and rebounds to strike his opponents with exponentially greater force.

The Meissner Effect is the source of adolescent turbulence. Social pressure imposed on a youth who is becoming superconductive (feeling his oats) is automatically transformed into energy fortifying the id. The id, therefore, automatically expels the superego. The more pressure social authorities apply to young people, the more powerful adolescent rebellion becomes. Adolescent emotions are a purely physical response to a physical environment. Trying to impose socially acceptable behavior onto refractory individuals by psychiatric counseling is about as effective as trying to talk a secondary coil out of its induced field when a current flows through its primary. But as soon as social pressure is reduced, the id is deprived of energy, and its field collapses. The young rebel is immediately flooded with anxiety as the guilt complex regains supremacy. The emotional up-and-down prevails until the genetic field integrates with the social field enough for the adult to grow into a higher dimension of consciousness.

Because everyone is born of women and nursed by women during infancy, the super ego is categorically female. The chromosome that deter-

mines the male sex, however, comprises fields oriented 90° and 180° away from the female field. These fields result in the separation of men from women and produce the sexual attraction between them, respectively.

The field separation between the sexes results in less than total reception of the imprinted super ego. This is why the male sex rebels against the female strictures during adolescence, while most girls are foredoomed to fail if they try to rebel and are foredoomed to tragedy if they succeed. As a result, the ranks of geniuses and violent criminals are exclusively male. To the extent that the ERA movement is bringing some women into leadership and prison, even more women are showing beards at an early age. There is a high price to pay for confusing equality with identicality.

The first sign of genetic field integration is the breaking of boys' voices to a lower register. The fact that the male larynx is larger than the female's is merely an anatomical support for an essential psychic growth. Many men who conform to female prohibitions retain tenor voices all their lives despite the lower fundamental frequency of their larynxes. On the other hand, women who develop a proper sense of their personal power acquire a sexually attractive contralto without any enlargement of their graceful throats. The timbre of the male voice signifies the sexual maturity of the soul, and the male voice is a critical stimulation of female sexual response. Integration of the soul in trance states is commonly attended by the emergence of an incredibly powerful, resonant voice.

In earlier times, before personal charisma was amplified electronically, the number of voters a political candidate could persuade was a direct function of the power of his voice. Since voice is an immediate expression of soul force, rating political speeches by their decibels was the simplest system for a democratic people to choose the best man to run the state. The essential virtue of rulers is not their wisdom nor their social compassion, but their charisma for holding a nation together against all the forces that bring people into conflict. All the great leaders from Jesus to Lincoln, Lenin, Hitler, Mao, and Gandhi won allegiance mainly by their vocal charisma. When Jesus spoke to the multitudes, you can be sure that He made Himself heard! Mistaken use of the loudspeaker makes premature idealism sound more powerful than mature realism, and immature people are always prematurely idealistic.

Charismatic personalities generate a field powerful enough to invade the highly permeable bodies of guilt-ridden people, who gather, as groupies, like iron filings attracted to a magnet. In this physics, "guilt" is not a judgment of wrong-doing. Guilt is the natural perception of personal weakness. Guilt is the

natural state of childhood. Guilt is the unquestioning, naive suggestibility that is characteristic of children and all other oppressed people. The delusion that all flesh is born in sin arises from being born helpless and magnetically permeable, in an unintegrated state, like soft iron.

The id is the original positive idea. The evidence of charismatic lives is thoroughly convincing proof of the power of positive thinking. The Meissner Effect enables superconductive people to use ambient vibrations as a source of personal power that literally transforms all the shit in the world into roses before it hits them. Verily, the Force is with them.

But groupies who believe in the power of positive thinking are groupies precisely because they lack the very magnetic field that makes positive thinking work. As a result, positive thinking works for groupies only as long as the groupies think exactly the way the glorious guru tells them to think, and all the profits of their positive thinking goes to the guru, not to the groupies. As long as groupies are integrated within their congregation, they are protected by the community field that is kept integrated by the guru. But any groupie who thinks his own positive thoughts outside of the collective field is imperiled by blindness to disasters quite evident to doubtful thinkers.

The world's greatest positive thinkers were the Japanese soldiers who went into battle wearing their national flag in the belief that the honorable fabric was bulletproof. Only immediate defection to negative thoughts enabled them to conquer half of Asia and the Pacific Ocean before they were cut down like the equally positive-thinking Polish cavalry that charged German tanks and machine guns. Realistic thinking beats positive thinking.

The term "positive thinking" is as misunderstood as other popular misconceptions about physics. The American concept of "positive thinking" is identical to the Japanese concept that is translated as "sincerity." This concept refers to the Integrity Effect of superconductivity that is generated by the Masters. Field integration by physical harmony *is* sincerity and positive thinking; any other conviction is delusion. Positive-thinking martial artists are defeated in tournaments every day because they do not realize that there is no power without harmony and integrity. When men of integrity compete for supremacy, everyone wins, because the ultimate warrior makes love, not war. Bloody battle is a losers' game.

The enthusiasm raised by resonating with a common social field improves the quality of most believers' lives without improving their circumstances. If this lift is worth your tithe, it is reasonable to invest in faith. But you only add to your travail if you persist in a search from guru to guru

believing you failed as a human being when your faith does not bring the material benefits and profound Salvation proprietory preachers have promised you. You have not failed, you have merely joined the rest of us fallible mortals in the tragic human comedy. Joining the human race is the greatest success the average person can achieve in this lifetime; most geniuses and mystics never attain it.

A scientific discovery and a definition of the soul is of epochal importance to your personal life. Now that you know your soul is a real entity, identical with the nuclear foundation of matter, you must realize that Salvation is no myth. You have a real soul to save and a real soul that suffers real damnation when Salvation fails.

What is Salvation? It's the process described in the first chapter of this book. By progressively harmonizing the vibrations of your body, your soul becomes integrated so that you become one with yourself. This is called "finding yourself." Continued harmonic integration with the real world outside your skin expands your personal field as it unites with the universe. This is called "finding your God." On your way, you will find your family, your community, your country, and your world. All the religious prescriptions that promote health and harmony are Ways to Salvation. The religious prescriptions that lead to malnutrition, overwork, deprivation, oppression, suffering, conflict, poverty, ignorance, etc. are all the wrong-way ramp to the Salvation Freeway. There is more Salvation in raising crops than in raising idols.

Your soul is a unique structure comprising innumerable genes. But the soul, like the genetic code, is not always completely integrated. The genetic molecule works because the polymer is readily broken and twisted by the structural dynamics of the ambient fields. As a consequence, few people are all-together all the time. The fact that *some* rare people are all-together most of the time and all people are almost all-together once in a while deceives the average naif into believing he has a religious duty to be all-together all the time. But it is physically impossible for more than a few people out of the planet's billions to be all-together all the time without technological support systems to dampen the quantum dither in ambient fields. Even Olympic champions reach their peaks for not more than a few months out of their entire lifetimes.

Unhappily, Salvation is not an absolute condition like a civil service sinecure; you have to keep working at keeping yourself Saved just like you have to brush your teeth every day—or else you risk losing your soul along

with your molars. Even the Masters must train every day like Olympic athletes. So take it easy on your Way to the Godhead; the Strait and Narrow Path goes on forever. If you exhaust yourself on your Way, you will go stale and lose more than you gain.

In other words, all your pilgrims who believe that to be Saved is to arrive in Heaven have been sold a ticket to nowhere. Salvation is not Heaven where the weary traveler rests at the end of the road. Salvation is the trip, and Heaven is the road. There is no end. Everyone is on the road whether they know it or not. Hell is going the wrong way. Enjoy the scenery!

Your soul is assembled just like your family tree. Your soul is specific and unique for your personal body in this incarnation, but it does not cohere as the same, identical instinct through a succession of incarnations any more than your material, genetic characteristics are transmitted without mixture, recession, and loss to your children. In other words, your immortal soul is exactly as immortal as your genes, and your soul is distributed throughout hyperspace exactly like your genes.

Hard-headed scientists will agree that when the case for reincarnation is couched in these terms, the soul is identical with genes. Since Mendel isolated genes, biologists have always believed in reincarnation. So, you see, the dispute between science and religion is mainly semantics, combined with the dogmatism of partisans who don't know what they are talking about. Intent readers of a Buddhist persuasion and those Christians who really understand their religion will remain convinced by their personal experience with identifiable consciousness, if not by their dogma, that unique personalities are transmitted as if they were immortal souls, through generations, intact.

The conflict between the immortality of the genes and the immortality of the personal ego is another case of poor semantics. If science is impeded by babel, religion is arrested by utter confusion.

Your soul is the field of creative energy composed of the harmonic integration of all the atoms in your material body. Your soul does not exist as identifiably you until after your original genetic molecule is assembled. Your soul enters this reality through the pranic field in the centers of your genetic atoms. As your soul emerges from your genetic nuclei, it is transformed from the pranic dimension through the etheric dimension, electric dimension, magnetic dimension, motive dimension, and the full spectrum of sonic scales as a function of increasing distance according to the evolution of the Unified Field Spiral Equation. At your conception, your soul was manifest in the magnetic dimension at the walls of your original fertilized cell. Immediately

outside your cell wall, your soul was reduced to a sonic field that corresponded to a die wave before it extended a millimeter. As your body grew and your cells became harmonically integrated, your soul extended beyond your body in the form that mystics call *the human aura.*

The range of the normal person's magnetic field extends for at least a yard with sufficient power to affect television reception and be registered on the recording level of tape recorders. You don't have to be a mystic visionary or resort to Kirlian photography to prove that you have an aura; an old radio, tape recorder, or TV with rabbit ears will show how magnetic your soul really is.

But before your soul expands beyond your body, everyone else's soul invades your body to imprint your nascent brain with the magnetic domains you experience as a guilt complex. As long as you are within a yard of your mother, her mind is printed into your brain the way a magnetic field prints on recording tape. And, for the rest of your life, your mother's field amplifies your guilt complex whenever you enter her presence. Happy mother-in-law suite.

Harmonic interaction between your inner field and your outer field generates a third field as a result of the superheterodyne effect well known to radio technicians. The superheterodyned field is a beat-wave representing the difference between the frequencies of your soul and the frequencies of your ambient (parental) fields. The superheterodyne effect, therefore, is identical to the moiré effect. The moiré pattern in trispace generates a flow at right angles to the generating waves. The field flowing at right angles to magnetic fields is the motive/sonic field. The harmonic integration of your soul with this reality, therefore, creates a third field, a sonic field of intelligence that is uniquely your personality. Freud called the third field the ego. Your ego is as immortal as your soul and ego is not diluted by breeding.

At birth, your sonic field has a wave velocity close to zero. This means that you are all instinct and practically unconcious of your identity. As your field grows and integrates, the wave velocity of your sonic ego accelerates. Each time your ego doubles its wave velocity, your consciousness expands through a higher dimension. There are an indefinite number of sonic dimensions between zero velocity and a nominal velocity. The exact number remains to be calculated from quantum equations. Each dimension adds to the richness and complexity of the personality.

Your ego matures when its wave velocity becomes congruent with the velocity of sound through your body. Until your ego matures to your body's

fundamental frequency, your body does not function as a coherent unit, and your mind does not function as a coherent personality. The fundamental frequency, therefore, can be established for medical science as the critical threshold of maturity. At all ego velocities less than your fundamental, you are subject to neuroses and other diagnoses of immaturity.

The threshold of maturity is defined by the emergence of sonic superconductivity. Ego maturity, therefore, is the definitive "spiritual power" that the mystic Masters have going for them and that the rest of us mortals are missing out on. It is physically impossible to be "sincere" or "think positively" before your ego maturity develops. Until this level of physical integration is reached, all enthusiasm is fated for frustration, all promises are made for breaking, and all prescriptions guaranteeing your personal power to control your destiny and wow the opposite sex will do you as much good as giving a child a Ferrari. Drugs, in fact, are positive thinking in a pill, and we can all see how pillheads survive the freeway of life.

Since there are very few mystic Masters (barely enough to found the world's great religions and not nearly enough to preserve them in their original holiness), it is obvious that the entire human species is still in its childhood, and mature humanity is a condition as unknown to philosophy as the realities of marriage and earning a living are to school children. The term "human nature" is really "childish nature." We don't yet know what true human nature is.

Your ego is a field of sonic intelligence that defines your unique personality. A field comprises all phases of waves, from pure radiant waves to standing waves. Therefore, the radiant-wave and traveling-wave extensions of your ego must surround a standing-wave structure that conforms to the configuration of your material body. Your ego body literally "wears" your material body like a suit of clothes, and the dynamic alterations of your ego body animate your material body exactly like the standing waves you saw moving the material particles of powder in the model universe.

Upon immediate inspection of a standing-wave structure in air, one perceives that the standing wave is composed of air. But if the same standing-wave structure is moved into water, it will seem to be composed of water. The standing-wave structure is composed of whatever material medium it happens to be located in. Therefore, the essential sonic standing wave is not composed of the material it happens to be found in at all. The standing wave is a structure of pure energy that is manifest from a higher dimension. In fact, a sonic standing wave is actually composed of elementary wave particles at a gravitic

velocity. Since your ego is a motive standing wave animating your body, it is not inherent in your body, but merely happens to permeate it. Under other circumstances, your ego could very well move to another medium and often does. Your ego, therefore, is your ghost or your spirit. The words, *ghost, spirit, ego,* and *personality,* are synonymous and are used interchangeably in this book. The term chosen in any given context is intended to refer to the different concepts generally attributed to this essential standing-wave body.

The sonic wave is inseparable from material. The intelligence of the sonic field, therefore, is identified with animal instincts and carnal pleasures. The pleasures and passions of the flesh arise with compelling intensity during adolescence because this stage of personal growth is correlated with the development of sonic superconductivity in the young material body. Erotic arousal is what sonic superconductivity feels like, and genital orgasm is "second sound" on an organ scale. The expansion of the motive field during erotic arousal is revealed by Kirlian photography. Mass hysteria, mass hypnosis, peer pressure, and the psychic phenomena typical of the turbulent teens are also products of sonic superconductivity. Only sonic superconductivity makes it possible for adolescents to survive rock music without suffering from homogenization of their cells, let alone deafness.

Concurrent with the creation of your ego by the superheterodyne effect of your soul with your environment, a full-frequency range of harmonic overtones and undertones is also created. During infancy, the harmonic ego bodies are too weak to animate your material body, but as your ego grows in power, so do your ego harmonics. Harmonic overtones of your ego contribute baser passions to your personality, whereas the undertones reach through the magnetic dimension to contribute conscience, insight, and higher intelligence to your fundamental ego. Ego harmonics are perceived as aspects of your fundamental personality, and a full range of harmonics integrated with your ego is recognized as a well-rounded personality.

Only the fundamental sonic frequency of your ego can possibly animate your material body. If your ego is fundamentally tuned to your body, it is not possible for your ego harmonics to animate your body at the same time. Nevertheless, your ego harmonics are complete fields, too, complete with standing-wave bodies. Since your ego harmonics cannot coexist in the same trispace as your fundamental ego, the only place your harmonic alter egos can possibly exist must be in alternative realities.

When the geometry of alternative realities was introduced to you at the beginning of this book in mathematical terms, the proposition was as easy to

understand as Relativity, and not nearly so convincing. But now that you've seen the abstract concepts of modern physics demonstrated in working models, you are able to understand that you have been familiar with alternative realities all your life. You just haven't been able to recognize higher dimensions of space-time because your point of view has been too low.

As you have seen, a musical chord is a perfect model of six-dimensional hyperspace. In an ideal Plate model, the powder reveals the pattern of the chord's fundamental. But the harmonics are there, too. Since you have proven that each frequency defines its own space, the harmonics are nothing other than the alternative realities. And so you see, the great mysteries of highest philosophy and mathematics are really commonplace. And the commonplace is the realm of mysteries.

As you observe a chord, you see its harmonics rotating into fundamentals. This rotation occurs over a passage of time. Since the fundamental material resonance establishes the present reality, you can see for yourself that the harmonics are past and future realities on parallel time streams, coexisting with the present reality in the same hyperspace.

Your ego and its harmonics constitute a chord. Over the course of time, interaction with the environment transforms the frequencies of your conscious chord so that it rotates through hyperspace. The spirit that was your fundamental frequency is tuned out from congruence with your material body, and one of your alter egos is tuned in. Unless there is a tremendous difference between your prime ego and your ego harmonics, this transfer of control is noticed only as a change of mood.

When your prime ego is tuned out of this reality, it takes control of another material body in the past or future. Concurrently, in this game of musical bodies, the harmonic ego that takes control of your body comes from a past or future life. It is in this simple way, proven to your eyes by a simple model, that your life in this present reality is determined by simultaneous events occurring in past, future, and alternative realities.

Ideally, the growing ego integrates with its harmonic alter egos in order to be aware of all changes of mood and personality. Awareness of past lives is experienced as memories. Awareness of future lives is experienced as a foresight of consequences. Awareness of alternative lives is experienced as creative solutions to present problems. In this ideal paradigm, alter egos are perceived to be aspects of the fundamental personality, and the well-rounded personality proceeds through life quite unaware that he isn't one person, but a host extending through hyperspace.

When the prime ego is poorly integrated with its harmonic alter egos, psychiatrists call the aspects that are occluded to the patient, complexes. In the worst possible case, ego harmonics are so isolated from each other that true multiple personalities develop. When your body is taken over by nonintegrated alter egos, you experience blackouts (more or less amnesia), and when you recover your prime ego, you wonder "what came over you." Among the spirits that can come over you are those which bring artistic creation, scientific discovery, and visions of the future, past lives, and other nasty trips that society prohibits you from remembering because it scares the horses and disturbs the children.

You must appreciate the fact that this theory is exactly equivalent to every concept established and proven by modern psychology. The difference between the truths you are reading here and the truths authorized in a medical textbook is mainly the terminology and the point of view.[3] From this point of view, the soft sciences of psychology and psychiatry find a physical basis on the hardest scientific and mathematical facts. Since the Holy Grail of psychology and spiritualism is a foundation on material physics, no one should object to finding it in this book.

A body is conscious only when its material is resonating in tune with a spirit. A body is animated only when the energy of the resonating sonic field is powerful enough to raise and move the material mass of the inert body against gravity.[4] Ego harmonics lacking sufficient energy to move your material body are experienced as the stream of thought that stimulates your emotions but otherwise fails to move you into action.

People in low dimensions of consciousness act out *all* their thoughts, and they believe that all their thoughts are the real truth in the conventional sense, because a small ego field is a weak ego, and a weak ego has even weaker ego harmonics. As a consequence, the ego harmonics that enrich the stream of thought for relatively mature minds lack the energy to reach the threshold of consciousness in the material body. Therefore, the small ego has no ideas for comparison and reflection; every idea is a motive force and the body acts out all thoughts automatically. For the childish ego, self-control does not exist. Childish heads are always with us. An orderly society can function only by restricting the publication of information that incites

[3]Other differences are due to mistakes. But no one should object to having mistakes corrected.

[4]An infant's muscles are more than strong enough to walk. The flesh is willing, but the spirit is weak.

antisocial behavior. The good intentions of the First Amendment to the American Constitution had only registered voters in mind.

Democracy can work only when government is limited to people who have matured to a level of consciousness whereby harmonically related, probable realities can be considered without the conception being automatically expressed in material action. Despite our fond illusions about equality, democracy cannot possibly survive when the franchise is extended to lunatics, criminals, and children. If our government could appreciate the reality of these physics, it would relieve much of the tension we experience with the totalitarian nations of the world whose populations are still mainly in the childhood stage of consciousness. Any time a despotic regime is removed by popular uprisings, the democratically instituted government that replaces it either collapses immediately from utter incompetence or else becomes more ruthlessly tyrannical than the old establishment. How many more times must we Americans witness this tragedy in the backward nations of the world before we learn to let other families raise their children without our interference?

Every time the prime ego is tuned out of the material body and no ego harmonic is tuned in to take over control, the material body collapses like a puppet with its strings cut. You may think this loss of all ego is at least as rare as epilepsy, but your body loses its animating spirit every time you go to sleep. In other words, you go to sleep every time your spirit shuts the door to business in this reality and trips out for the night.

The conventional wisdom perceives a sleeping body as "unconscious"—an example proving how conventional concepts make us believe what we know to be categorically false. The sleeping material body is "unconscious" of events happening here, but a sleeping person is quite conscious of events happening elsewhere. The peculiar consciousness of alternative realities during sleep is what dreams are all about.

In dreams, your alter ego enters alternative realities where there is insufficient harmonic integration to move your material body. Neither is there sufficient harmonic integration for the ego to comprehend the alien spaces of dreamland. As a consequence, dreams are subject to the same amnesia that is characteristic of blackouts and multiple personality, and while you are dreaming, your body's motor systems remain flaccid.

The principles for generating dimensions prove that it's impossible for an observer to perceive a space extending in more dimensions than the ego field comprehends. Therefore, any time your spirit enters a dream space of a

vaster extent than your normal ego can comprehend, you remain utterly oblivious of the experience. As a consequence, all the dreams you can remember upon awakening must occur in alternative spaces of consciousness defined by no more dimensions than your ego can comprehend, and are more likely to be considerably restricted.

Only one space is exactly coextensive with your normal ego consciousness. That space is this material reality. Therefore, every time you have a dream that is exactly equal to the comprehension of your ego, you wake up. This material reality is only a dream, one of many dreams your hyperspacial soul is experiencing.

Restriction of consciousness is the normal state of childhood. Therefore, during the familiar every-night variety of dream, you return to the state of consciousness characteristic of your childhood. Now, it becomes self-evident as to why Freud concluded that all dreams are childish wish-fulfillments and childish anxieties. The loss of dimensions of consciousness is the condition of psychoses and neuroses; this is why the mentally ill experience life in childish ways as if they were living in their private dream world. The childish state of consciousness is unstable; this is why dream worlds change their structure without any logical continuity and why the mentally disturbed change their moods for no logical reason.

As dimensions of consciousness are reduced by the condition of normal sleep or by some pathology, sensory images become confused and occluded, with vision being the last sense to lose its functions. The conscious ego almost always identifies itself with visual consciousness, so the eyes are the last sense organ to be switched out. You can prove this phenomenon by noticing that you are chronically unaware of all the sensory information received by your body except what you are looking at. In recognition of the chronic state of aural inattention, the proper naval chain of command requires that all oral instructions be repeated orally by both officer and men to make sure that everyone is saying and hearing the same message, and then the officer is required to stay with the men until he sees they are doing it the way he told it.

Because sensory experience is limited by the dimensions of consciousness, it was inevitable that Freud concluded from his intense study of neurotic personalities that all dreams are limited to childish wishes represented as silent, visual images in shades of gray. Since Freud's own dreams were no different from those of his patients, we can infer that the great doctor was almost as neurotic as his patients. Jung, in contrast, had rich dreams, and so did his patients.

The most unpleasant condition of childhood is the inability to control events; the child even lacks the power to control its own body and behavior.

Likewise, the most unpleasant feature of dreams is the inability to control events and our responses. Lacking memory or goals, we are plunged into dream realities like Omar, why not knowing, like the wind, willy-nilly blowing.

An exception to the general rule that dreams are limited to lower dimensions of consciousness occurs when a person integrates his ego beyond the speed limit established by his society. If you should achieve this elevation of consciousness, you will wake up in a dream with all your normal, adult faculties in good working order, knowing full well that you are dreaming. Dream researchers classify this experience as a *lucid dream*. Lucid dreams are commonly rich with sensory images and are brightly illuminated with gorgeous color. Lucid dreams are, in fact, a state of Enlightenment that is experienced in an alternative reality.

Whenever you wake up in this reality in a lucid state, the mystics say that you have attained Enlightenment and you experience all the enhanced sensory delights and brilliant colors of the lucid dream. The radical discoveries of scientific genius, the inspirations of great art, and the visions of clairvoyants occur in the lucid state of consciousness. But because a lucid mind is prohibited by social strictures, psychiatrists diagnose this state as psychotic, and everyone represses all evidence. With typical human perversity, the institutions of school and church proclaim devotion to expansion of consciousness. But anyone who becomes lucid is penalized. As a consequence, a frank realization of the lucid mind occurs only in the lunatic fringe, with most normal people proceeding on quite unaware that they are living a limited and rather miserable dream.

People who experience lucid dreams know that they acquire the power to influence the events in their dream space. When this level of consciousness is retained through reawakening into this material reality, this person finds that he has developed PSI powers. The power to work miracles, as demonstrated by Elijah and Jesus, is developed in the state of meditation called *lucid dream* and is then carried into this reality.

Acceleration of your spirit on the Heavenly Highway is the result of harmonic integration of all your ego aspects. When circumstances in this reality prohibit you from expanding the dimensions of your consciousness in your flesh, you can proceed toward your Divine destiny through dreams. You will now recognize that it is the harmonic integration of the manifold ego-aspects that opens the third eye.

Victorian scientists were certain that all dreams were colorless and visual and that it was physiologically impossible for a female to experience orgasm. This was purported simply because everyone who could buy enough

medical attention to provide case histories were in a state of consciousness no higher than the doctors. The fact that dreams in wide-screen Technicolor and wraparound Dolby are as common today as female orgasms is not the result of better diagnostic techniques. This generation has reached the China Syndrome for a profound metamorphosis of human consciousness. Western people, and large parts of Eastern populations, are feeling the flutters of the lid of the third eye. The state that was called *psychotic* at the beginning of this century and *psychedelic* in the middle of it, will, by the end of the century, be the *normal* state of consciousness for every properly educated man and woman. And this metamorphosis will occur, like all the preceding ones, with no authority being aware of it.

Your ego in your body is created 90^{∞} from its generators and 90^{∞} from your material field. Unified Field geometry proves that 90^{∞} is the maximum charge-attraction angle. 90^{∞} is also the relationship of the love bond between the sexes. No love is greater than that of the spirit for the flesh, and life clings tenaciously to this material world. 90^{∞} from the material body puts the mind in exactly the same location as the body. This geometry proves why the mind is united with the body. But at 90^{∞}, the mind must exist at the instant exactly between the instants when the material body blinks into existence. In other words, your mind is your personal antibody, and this is why the mind is as elusive as antimaterial unicorns in these scientific parts.

Since mind does not exist in its massive phase when the material body blinks on, and vice versa, it follows that mind and body cannot possibly detect each other directly. In fact, you know very well that you have never experienced material reality directly. All you can possibly experience is the electromagnetic waves that produce images of reality. The electromagnetic field is the bridge between mind and matter.

If 90^{∞} establishes the charge that binds your spirit to your body, 90^{∞} between your alter egos and other people's bodies must also attract them into your life. On this physical basis, popular psychologists of the positive-thinking kind are able to charge you with being the author of your own disasters.

The ego harmonics, well integrated with your prime ego, attract all the good things into your life. The ego harmonics you repress attract your disasters. If you repress powerful ego harmonics, some mighty bad people are going to swing in your life until you get your act together. Opposition in real life is what breaks down the barriers of repression until you recognize that all your troubles are what psychiatrists call projections of your unconscious. But it does you no good whatsoever to be told this, especially by some wimp who

enjoys pulling wings off flies, because as long as repressions rema
impossible for you to do anything to improve your condition. The c
dissolve repressions is to endure the disasters that grind them dow
man, therefore, will seek as much disaster as he can tolerate—a wife, fringage, and kids curious about dope—but will take no risks that will bring divorce, foreclosure, and a bust.

It doesn't matter if you don't get saved in this lifetime. What you don't "clear" now, you can do in your next incarnation. Trying to do it all at once will bring so much disaster into your life that you'll be crippled and will spend the rest of your mortal days backsliding to hell.

A phase angle is always manifest as a distance in real space and time. Therefore, if one's mind is tuned just beyond the bandwidth of 90^{∞}, every extra quantum jump of frequency produces a displacement of the mind from the body. At the edges of the band, this condition is called being *spaced out*. Beyond the fringe, the ego structure remains awake in an out-of-the-body experience. Notice that being spaced out is all but unknown to people over forty years of age, but the state is epidemic in the younger population, and out-of-body experiences are becoming common testimony. Western Civilization is beginning to peek through the collective third eye.

A disembodied soul is a special manifestation of the dream phenomenon, so you can be said to be dreaming in a peculiar state when you leave your body. But bear in mind that this reality is but a special kind of dream that is manifest in material bodies within this frame of reference. Within their own physical frames of reference, all dream realities are equally material.

In many dreams—especially the common dream of finding yourself naked in a public place without anyone noticing your embarrassment—you are walking as a ghost without your material body, so naturally other people cannot see you. People in the alternative realities of dream worlds cannot see your ghost any more than people in this reality. When people in this reality see your ghost, they are likely to describe your appearance as a *doppelgänger,* depending on how solidly your spirit is manifest. Remember to dress for these public appearances.

As a ghost, you are a gravitic body. A gravitic field can exert force on material bodies to a limit set by the energy of the gravitic field. Therefore it is quite possible for ghostly beasties to go bump in the night and for angry adolescents to project their repressed spirits as poltergeists.

Your spirit is immortal. Your spirit exists in whichever time stream where the velocity corresponds to its field. Ghosts, therefore, pass through realities as readily as you switch lanes on a freeway.

Wherever a spirit finds a material body tuned exactly 90^{∞} away, the spirit inhabits that body. This is how your personal spirit is bound by reincarnation to this Earth, as Buddhists believe. It can happen that a spirit will find some inarticulate body 90^{∞} away and be trapped for a while in a tree or a rock or an idol, as animists believe. If two or more bodies become 90^{∞} from your spirit at the same time, your spirit takes possession of both bodies, like two television sets bringing in the same channel. When this happens to you, you experience mental telepathy. An unusual case of mental telepathy was dramatized in the film, *The Eyes of Laura Mars*. Mental telepathy is common among lovers, because all love is a manifestation of harmonic resonance.

When a disembodied spirit is tuned exactly 90^{∞} from the energy level of the air, the random molecular motion of the gas conforms to the shape of the sonic standing wave, exactly as you saw sound waves draw powder on the vibrating plate to reveal the form of the standing-wave structure. A standing wave in air is what spiritualists call ectoplasm. Air loses its random molecular velocity in a standing wave, so there must be a sensible drop in temperature whenever ectoplasm appears. This is why ghosts are accompanied by drafts of chilled air. As a standing wave, ectoplasm has a slightly different density than the ambient atmosphere. Therefore, the refractive index is different between air and ectoplasm. Sometimes this minute difference is sufficient to render a ghost visible in a faint light against a dark background, and it might even register on film.

So now you know what ghosts are, and you don't have to be terrified by the unknown. A ghost is nothing more or less tangible than a standing wave in air, and it can do nothing more than an equivalently dense body of air. As long as ectoplasm remains airbound, a ghost can do no more mischief than a real person; if it bothers you, you can demolish it by sound waves. It is the sound of the chant that exorcises unwelcome spirits. But if a troublesome spirit gets tuned to some material body more massive than air and becomes articulated, you've got yourself a real problem, especially if it takes possession of your personal body. Demonic spirits can drive people wild, as Jesus showed us by casting them into the Gadarene swine.

All atomic, molecular, and crystalline structures are determined by the principles of the "close packing theory." In other words, the form a field structure takes is a function of its absolute mass, and its mass is established by the absolute number of its elementary particles. To illustrate this, three bubbles on the surface of water will cohere into a triangle because a triangular conformation is the smallest possible amount of space-time that can contain

three spheres. (Bubbles form spheres because of the close packing principle. A sphere is the smallest possible extension of the energy it contains.) If the structure of the ambient space is altered, the triangle of bubbles will extend into a line. To us, three bubbles in a straight line looks like the maximum possible extension in space-time, but in the bubbles' space, it still conforms to the close packing theory.

Close packing theory is inherent in Einstein's theorem that light always takes the shortest possible route through space-time. Since the shortest distance between two points is a straight line, light always travels a straight line, no matter how winding it may become, as it does through a neon tube, glass fiber, or lucite pipe. The close packing theory leads directly to $e = mc^2$ and is the very foundation of modern physics.

The morphology of all natural creatures conforms to the fundamental principles of close packing. The human body, therefore, assumes the form we have because the human soul has evolved to a certain scale of consciousness. Any alteration in the energy of the soul must result in a correlative mutation of the carnal body. Every animal, therefore, is defined by the dimensions of its soul.

Once created, your ego is immortal. But as a field of consciousness, your ego is infinitely mutable. The frequency of consciousness is a function of energy. Therefore, every time your ego changes its frequency, your ghost must change its form.

Frequency transformations, imposed by environmental pressures upon low scale biological fields, cause them to change location in order to reduce pressure, or else their body structure will change its form. This is why lower forms of life travel and mutate so readily until they find a niche where they can stabilize their morphology. As animals ascend the dimension of scale, the range of behavioral responses increases exponentially as the body resists mutation. So instead of modifying our material bodies and ego concepts to fit the pressures of the environment, we alter the pressures of the environment to agree with the way we are.

Every time your ego changes frequency, its form changes, and the form of your ego body is imposed onto your material body. A change in mood produces changes in the body's behavior, attitude, posture, expressions of the mobile features, and state of health. The state of health is determined by internal morphology on many scales.

When your ego is transformed beyond a certain harmonic span, your ghost must lose its human form. In higher states of consciousness, you experience the transfiguration of your spirit as the inspiration of God. If of the

Christian persuasion, you will be convinced that you are reborn in the spirit of Christ—and you really are. If you are of an animist religion, your experience of spiritual transfiguration will confirm the reality of your tribal totem.

On the other hand, as your ego drops in scale, you feel yourself shrinking inside. Your animating spirit literally reassumes your childhood form, substantiating the roles described in Transactional Analysis. Continued loss of ego size transforms it into a baby spirit, as expressed by tantrums and infantile delights. Psychiatrists call this process "age regression by hypnosis," without realizing that a real physical transformation is occurring to the energy body that animates your corpus. Ultimately, your spirit collapses into its fetal form, and your body curls up into a ball.

Age regression, initiated by hypnosis, chemicals or other instigation, can continue to evolutionary stages preceding the human form. When this happens, a person has the experience of being transformed into a werewolf, a vampire, or some other creature of myth and superstition. In other cultures where our animal spirits are not loathed and feared, age regression to prehuman dimensions of consciousness is regarded as a religious experience whereby initiates achieve communion with the tribal totem and tutelary spirits. Horror movies are popular among teenagers because they provide a vicarious expression for our animal and diabolical spirits so that they can be integrated with the conscious ego. *The Dark Crystal* teaches movie-goers the most profound of all religious truths; exaltation to higher dimensions of holy consciousness is what happens when the diabolical spirits unite with the Divine spirits in the human personality. Now that we no longer institute witch doctors to conjure our animal spirits by masked dances, the drive-in movie has become the religious sacrament our culture needs to implement our social evolution toward holiness.

The powers attributed to spirits are the demonstrable physical properties of standing-wave bodies. In Disneyland, artificial standing-wave bodies are manufactured as holograms to simulate ghosts; these artificial ghosts are the real thing. As you can observe in the Plate Flutter Model, standing-waves are protean in structure, changing form as readily as we can see the changes of emotional moods and states of consciousness. Standing-waves do not register on film, except in special conditions; they cast no shadows and reflect no image in mirrors. You will recognize all these properties described in myths about spirit beings and witches. Unless a standing-wave can gather material to substantiate its body, it can be seen only by the third eye. We are surrounded by spirits today, as we were before the dawn of civilization. When your eye opens, you will see them—as described in the modern chronicle of *Findhorn*.

When Carlos Castaneda had the experience of being transformed into a crow and flying overhead, it was his spirit that assumed the form of a crow, and his ego really did soar as a crow. Don Juan could not answer Castaneda's questioning of whether he really was a crow and whether other people could really see him flying overhead. Don Juan could see Castaneda's spirit as a crow because the sorceror could see with his inner eye. But Don Juan knew that other people had their inner eyes shut. And Don Juan did not know any of the scientific concepts that a university-trained researcher could understand and accept. We sense the authenticity of Castaneda's apprenticeship because Don Juan had a good grasp of the physics he commanded, he was aware of the limitations of vocabulary and social concepts to a degree almost unique among popular mystics, and he explained his knowledge with the greatest semantic precision that the available language made possible.

Disembodied spirits are bound to Earth for a succession of incarnations because of their heavy state. To be heavy, as you learned, is to vibrate at slower than orbital velocity. Being bound to Earth and incarnation is the same condition as damnation to hell and darkness. The myth that all men are sinful simply means that all incarnation is blessed or cursed depending on which direction you are traveling on the eternal Way, and the direction preferred by your ambition.

When your spirit was very young, long before you became human, your spirit was also very small and very heavy. In those far-off times, you spent millions of years incarnated with the rocks of this Earth. As you grew and lost weight, you evolved through all forms of animal life. Your embryo completed this evolutionary course before you were born.

When the vibrations of your spirit reach the sonic velocity of the material of your incarnation, your spirit's weight is reduced to zero. As your spirit continues to evolve into higher dimensions of consciousness, the correlative acceleration of your vibrations reduces the weight of your spirit to less than zero.[5] Now, as you have seen in the Plate Flutter model, a sonic standing wave has the power to elevate material particles against gravity. Therefore, as your spirit accelerates, it actually lifts your material body from the ground. The mystic Masters, superhuman dancers such as Nijinski, and some of the current crop of Olympic champions are able to perform their incredible feats of gymnastics, apparently defying gravity, because they literally lose weight during their brief moment of inspired performance. A

[5]By now you will realize why the mathematics in the core of this book are necessary to make the conclusions verifiable. If you skipped the technicalities, you may want to go back and study them now.

sufficient loss of weight enables a person to walk on water. I doubt that the Maharishi is able to package the levitation formula for over-the-counter sales to every leadfoot who aspires to walk in Jesus' footsteps without getting wet feet, but the new physics endorses the possibility of the Maharishi's claims.

When your spirit levitates, it no longer remains Earthbound when your material body dies. Therefore, it rises like a bubble in the hyperspacial sea to find its equilibrium on a more massive planet. When you are transported to other planets within or beyond this reality, the stronger gravity field does not weigh you down any more than you feel weighted down on this Earth; your spirit always settles where there is enough gravity to keep your feet on the ground. Eventually, your spirit evolves to the velocity of plasma, and you become incarnated as an angel on some star. When your spirit reaches the speed of light, you outgrow all incarnation and become transformed into an electromagnetic standing-wave body. As a creature of pure light, you become an archangel whose consciousness comprehends all of hyperspace, and you dwell in the highest Heaven established for the creatures of this universe by the God Who created it.

And so, you see, the promises of Salvation and Eternal Life as Divine spirits are scientifically verifiable after all. The only discomfort the new physics imposes upon religious beliefs is the loss of childhood wish-fulfillment. When your spirit grows up to Divine Consciousness, you don't have your childhood wishes any more. Instead, you get the management of this cosmos laid onto your shoulders; it becomes your responsibility to keep this old universe unfolding as it should. As an archangel, your spirit eventually returns to Earth as a soul—after 360^{∞} of transformations around the universe. Only after a successful tour of duty as creative soul do you finally unite with the One God of All We Got in Nirvana. There is simply no rest for the holy, and that is the hell of it.

These discoveries about spiritual realities are not new. Tesla pioneered the physics, although he denied their spiritual consequences in all public utterances.[6] At the present time, the Soviets are implementing Tesla's equations with psychic discoveries, behind the Iron Curtain, to produce hyperspacial weapons. In 1981, Bearden rediscovered Tesla's secrets and realized what has been going on in some of the secret Soviet proving grounds that have evaded the nuclear inspection treaties because they are not nuclear.

[6]Considering the suppression of Tesla's very existence for fifty years, we have no way of knowing Tesla's insights into spiritual phenomena. All we know of Tesla today are the writings released from suppression. What is still censored?

The Soviet secret weapon beams a high-energy radio wave. In our reality, all radio waves travel at *c,* but in hyperspace, wave velocity is a function of frequency, according to the Unified Field Equations. A microsecond later, a wave of longer length is beamed. In hyperspace, the second wave catches up and intersects the first wave. At the point of intersection, the wave energy is rotated 90° from hyperspace to emerge into our real space as a blast of electromagnetic energy. Potentially, the Soviet hyperspace howitzer can transmit the explosion of an atomic bomb without any radioactive particles and without any delivery vehicle. The flashes of light and sonic booms that disturbed residents of the Atlantic seaboard during 1977 were target practice by the Soviet hyperspace howitzer. If the Pentagon doesn't wake up and smell the coffee boiling over, it's going to be Pearl Harbor all over again with Lt. Col. Bearden in the role of a latter day Gen. Billy Mitchell. If the populist nuclear disarmament movement has any effect on government policy, it will be for the same reason that the antiwar protestors eventually achieved withdrawal from Vietnam; atomic bombs are already obsolete.

In a tridimensional projection, the material field, the motive/gravitic/sonic field, the magnetic field, and the higher fields are represented as concentric shells. But in the universal hologram, they all occupy the same space at the same time. As a result, your personal being is composed of a material body, a sonic body, a magnetic body, an electric body, an etheric body, and traces of pranic bodies, like a model tesseract.

Of the four dimensions comprised by our cosmos—material, sonic, magnetic, and electric—the last three are energy fields. The intelligence manifested by your sonic field gives you the street smarts. The intelligence of your electronic field is experienced as your reasoning faculties. The intelligence of your electric field inheres in your genes whence instinct arises and Divine Inspiration is received. Your body comprises a veritable Holy Trinity. We have found the Father, the Son, and the Holy Ghost. Your material body is the Temple of the Divine Trinity.

Each of your personal fields of intelligence is congruent in the same space. Each field is separated from every other field by wave velocity. Therefore, we have a state that answers the definition of another dimension. *The seventh dimension of ultraspace is generated by velocity.* Because each field is defined by a successive doubling of wave velocity, I propose that ultraspace can be described as successive *orders of the c dimension.*

EPILOGUE: JOURNEY TO THE END OF THE UNIVERSE

Here is your ticket to take the *Enterprise* on a circumastrogation of the universe (Be sure to take your camera!)

Everyone who has looked up the stars has wondered how far away they are and how far the void extends beyond the farthest star.

Before the modern era, every person looking to the horizon wondered, "How far can one travel until the end of the world is reached? And what is beyond the end?" The local wise men circumscribed the Earth at various distances, all too far beyond the longest camel route for anyone to prove they were wrong, and populated the transterminal territories with chimerae of every configuration. Who could say it wasn't so? As long as knowing the true size of the Earth made no difference to the price of slaves from Africa, it was heresy to doubt the calculations of the priests. But when ships began to sail far from the sight of land, insurance underwriters demanded to know exactly how far their investments could go before they fell off the edge of the world.

You may suppose that the size of the Earth remained a mystery until the Age of Exploration because no one knew how to measure planetary expanses.

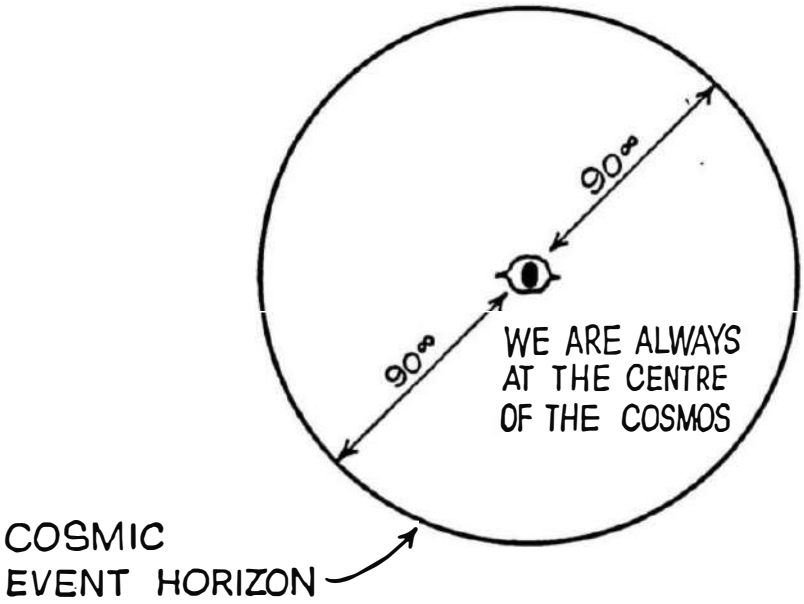
On the contrary, every man (women were prohibited) educated in the liberal arts has always known how to measure the world. In fact, quite a number of mathematicians made close estimates from time to time, but they were buried quickly by the priests after a blazing eulogy. When sailors saw low points disappear below the horizon before high points, some of them deduced that the Earth is a globe. All they needed to calculate the circumference of the world was a measurement of the altitude of the horizon over a known distance. They then extrapolated the curve until it closed around itself to form a circle. The problem is given to school children as a practical exercise in elementary geometry.

The discovery of the Red Shift provides us with just the horizon we need to calculate the size of the universe. If light accelerates over reaches of space, then there must be a velocity at which its velocity reaches $2c$; correlatively, if light curves over distance, there must be a radius at which electromagnetic waves flow at right angles to the observer. Beyond that radius, no information can be detected. Did you ever wonder why the sky is dark at night? The obvious answer is that the stars are so far away that we receive barely enough light to see them. But if the cosmos were infinite, and contained an infinite number of stars, an infinite number of photons would fill the sky with the brilliance of the Sun. The night sky is dark because the cosmos is not infinite, but is bounded by the event horizon, like a black curtain closing us from the rest of the universe. The distance of the event horizon can be calculated from the Hubble Constant in terms of miles, meters, or light years. However you measure it, it comes out to more digits than makes sense; the only practical unit for measuring cosmos distance is the degree of phase dislocation on the radial axis defined by the line of sight.

It is 90^{∞} from here to the event horizon, in all directions. Therefore, the diameter of the cosmos is 180^{∞}, twice the length of the line of sight. The circumference of the hyperspacial cosmos must be 360^{∞}, four times the length of the line of sight. See how simple it is?

Now, if you will examine the definition of the event horizon, you will make a discovery that has been overlooked by all the great scientists in the world. Light cannot reach us from the other side of the Black Sky because its apparent velocity is equivalent to flowing away from us. A space defined by an efferent velocity equivalent to the speed of light answers to the description of a Black Hole. The cosmos is on the inside of a wraparound Black Hole!

The Unified Field equations prove that field velocity accelerates as a function of the approach to a field center. Therefore, the event horizon

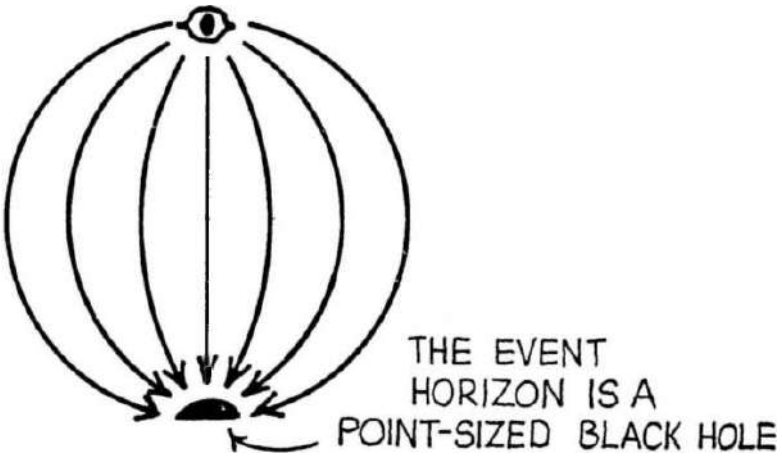


THE DISTANCE FROM HERE TO THE EVENT HORIZON IS 90°. THE DIAMETER OF THE COSMOS IS 180°. A 180° SPAN IS A HEMI-HYPERSPHERE. THE ANTIPODAL HEMIHYPER-SPHERE EXTENDS THE UNIVERSAL RADII 90° BEYOND THE COSMIC EVENT HORIZON.

containing the entire cosmos must be mathematically equivalent to a field center. But the event horizon is a spherical surface surrounding us, whereas a field center must be an ideal point. The radial lines of sight are like meridians of longitude that appear to diverge when you look out from the pole of a sphere toward the equator, but over a distance, the lines of sight bend to converge at the opposite pole. This bending of the lines of sight is one of the ways in which space-time contracts as a function of velocity, as calculated by Fitzgerald.

The acceleration of velocity toward the event horizon means that our cosmos must become increasingly dense as it extends away from Earth. Since we have proven that resistance to wave transmission decreases inversely with density, we can deduce that the event horizon is a Black Curtain of superconductive space.

In the other hyperdirection from the cosmic event horizon, orbital velocity around atoms also accelerates to the *c* limit. Note well that the interior space of atoms is superconducting and superdense.



THE RADIAL LINES OF SIGHT FROM HERE TO THE CURVE TOGETHER TO MEET THE EVENT HORIZON AT A POINT. IN A HYPERSPHERE, THE LINES OF SIGHT ARE LIKE MERIDIANS ON A SPHERE, RUNNING FROM POLE TO POLE.
THE EVENT HORIZON, AT THE COSMIC ANTIPODES, IS A BLACK HOLE OF ZERO DIAMETER.
THE CONVERGENCE OF THE LINES OF SIGHT IS CALCULATED AS THE FITZGERALD CONTRACTION.

In real space, the diameter of the cosmos is twice the length of the line of sight from the observer to the event horizon. In hyperspace, the diameter of the cosmos is the sum of the line of sight to the event horizon and the line of sight to the electronic surface of the atom. The atom is an event horizon surrounding the cosmos seen from the other side.

The cosmic event horizon is a portal where our reality enters a space of a higher dimension. In that higher space, there are as many other cosmos as there are atomic points in our space. Looking in the other hyperdirection, each atom is the point where another cosmos of a lower dimension enters our space. Is it any wonder that Puck laughs at human folly? We have an exhorbitant astrophysical industry that has been scanning the sky for decades seeking a calculated Black Hole, and here we are living in the very center of the greatest Black Hole we can possibly know. Fish who live in the ocean are the last creatures to discover water.

Beyond the event horizon defined by the cosmic gravitational wave, the cosmic magnetic wave doubles the radius of hyperspace, and, beyond the magnetic event horizon, the cosmic electric wave doubles the magnetic radius. Therefore, the radius of the hyperspacial universe is four times the

distance to the cosmic event horizon, and a circumference of the universe is eight times the radius of the cosmos.

The other sides of the universe are as mysterious as the far side of the Moon. They are forever hidden from sight unless someone goes there to take a look. Imagine that you are Commander of the Starship *Enterprise,* and you have received orders from the Ministry of Galactic Defense to mount an expedition to explore the Black Sky beyond the event horizon. You are assigned to lay claim to everything, in case territorial rights prove valuable, and to return with charts, specimens of every creature that does not make a specimen of you, and all the loot you can get away with. Real explorers are wildcat drillers who are supposed to make a profit for the investors. You can't get rich wearing a White Hat in a real space opera. We'll send a task force to argue title with the owners later, if gunboat diplomacy seems profitable.

You are supplied with maps of the cosmos covering the range of the most powerful optical telescopes, but they are of little use to you because the shoals of space have shifted over the millenia while their light has been coming to the observatories. For all practical purposes, you will be in uncharted territories by the time you leave the Inner Sector of the cosmic gravitational wave.

I shall imagine I am a reporter for the Reuters-Tass-Little Red News Agency, compiling press releases from the Space Administration Headquarters at Houston as soon as they are received from the Arthur C. Clarke Observatory on the Moon.

The revolutionary Clarke telescope makes this reportage possible because it does not use light as the viewing medium. Light would be lost beyond the event horizon.

When the conquest of the cosmos advanced through the galaxies of the Inner Sector following the Star Wars, electromagnetic waves became useless for communications because no one except historians had any interest in messages by the time they were received. It was the failure of interstellar communication that broke up the First Galactic Empire. Each stellar civilization guarded its autonomy jealously until etheric engineering made it possible to transmit information instantly by superheterodyning the signal to successively higher orders of the *c* dimension. The Japanese genius for simplifying production technology reduced the etheric circuitry to cheap, solid-state modules in the form of stone pyramids of sufficient size to endure for millenia. Once the Great Pyramid Communications Network was established on all habitable planets and innumerable unmanned relay stations, The

Intergalactic Confederation of the Holy Goat began its expansion throughout the cosmos. (If the politics of this scenario seem atavistic in association with such superior technology, remember that as long as our spirits retain human form and reside on this Earth, we shall remain politically primitive as we have always been.)

Beginning in the Sixth Decade of their Revolutionary Calendar, Soviet physicists advanced the principle of the electron microscope toward the engineering of the laser holographic telescope, and they then found a way to use virtual particles as a scanning beam for sending and receiving messages across intergalactic space. Virtual particles possess infinite velocity, zero mass, and no charge, so they can penetrate everything in the universe, including the event horizon. The virtual beam scanning telescope is the perfection of thousands of years of psychic research behind the Iron Curtain, following the experimental proof that virtual particles are the medium of thought waves, and thought traverses all space instantly. It is, of course, as infeasible to use an irresistible beam for viewing as it is to bottle a universal solvent. But virtual particles can be tuned to acquire real dimension at preselected distances so that they will be reflected from the objective plane and return to a focus at the observing plane. The Arthur C. Clarke Telescope works on the same principles as psychokinesis.

"Good evening ladies, genetlemen, and the ten other sexes in Mother's Milky Way. This is your Star reporter at Houston Astrobase bringing you, as the reports come in from the Clarke Telescope on the Lunar Highlands, a running account of the first expedition to the far side of the universe. Due to the Fitzgerald Contraction, once the *Enterprise* is more than half way to the Black Sky, events will transpire with increasing speed until the tape reels out of the virtual scanner faster than the eye can resolve. The action you will see on your telescreens as the event horizon is approached will be slowed to a convenient viewing speed. With space compressed to zero, the crossing of the event horizon will be the smallest possible step for the Mission Commander, but a giant leap for mankind."

Soon after passing 60 hyperdegrees, a ring of dull red light begins to grow in the sky around the *Enterprise* on the plane at right angles to its direction of travel. The ring expands toward the point on the event horizon where the *Enterprise* is heading. As the width of the annulus enlarges, the red is followed by bright orange, yellow, green, blue, and violet. The Starship is flying through the center of a cosmic rainbow. The diameter of the Black Sky contracts like the pupil of a Cosmic Eye within its gorgeously illuminated iris.

The *Enterprise* is seen speeding into the Black Hole, as if through the eye of God, and the eye is closing behind it.

This phenomenon is produced by all the energy in the universe seeming to accelerate into the Black Hole. The cosmos is bounded by an impenetrable wall of pure energy, flowing at right angles to the line of sight. Flowing at right angles to the line of sight, the wall of radiation cannot be seen until it is approached by the scanning beam of the virtual telescope. As the *Enterprise* nears the event horizon, the viewing angle to the curtain of the Black Sky narrows, shortening the perceived wavelength of the circumambulant 3 Hz. microwave background radiation of the cosmos, until it becomes visible as light.

But it is not quite true to say that this phenomenon has never been seen before. If you read the accounts of the ancient explorers of hyperspace as they are commemorated in myths, the Greeks said that the heavens are bounded by a shell of celestial fire that they called the Empyrean Regions. By historic times, the current of electric energy flowing around the circumference of the hypersphere became known as the River Ocean. The iris of the Universal Eye, blazing with infinite light, is described in Christian myth as the Pearly Gates. Because the pupil contracts to a point just when the traveling soul is about to enter the Kingdom of Heaven, the Way is described as the Strait and Narrow Path. The ancient scribes could not have preserved a more accurate log of their journey to the end of the universe if they had studied Relativity under Doctor Einstein himself.

As the *Enterprise* races through the constricting eye of the universal vortex, radiation heats the ship beyond the capacity of shielders designed for penetrating stellar coronas. The energy of the force field around the Black Hole is infinite, and you are ordered to abort the mission before the expedition is vaporized. But the superhuman logic of your Science Officer sees a way through the fiery Gates of Hell. Spock points out that the Fitzgerald Contraction is reducing the length of the *Enterprise* to zero; the ship and everything in it is becoming a perfect plane at right angles to the line of travel. Photonic currents cannot touch a plane edgewise, so the *Enterprise* can cut, at hyperspacial intervals, between the photons. You set the helm on an unvarying course, call all hands to Emergency Alert, and instruct the crew to remain absolutely still without blinking an eyelash during the critical passage through King Neptune's Court.

Everyone freezes at your command. Tragically, the wife of the helmsman cannot resist the temptation to look at the edge of light. The instant she

introduces an off-angle vector to her head, it explodes in a puff of plasma. As her decapitated body topples over, it, too, explodes into plasma. If the crew were not clad in reflective battle dress, everyone on the bridge would have been scorched to death by her photons; her particles coat the interior surfaces of the bulkheads like the antireflection salt on the surface of a modern camera lens. The Guardian Hounds of Hell claim a victim.

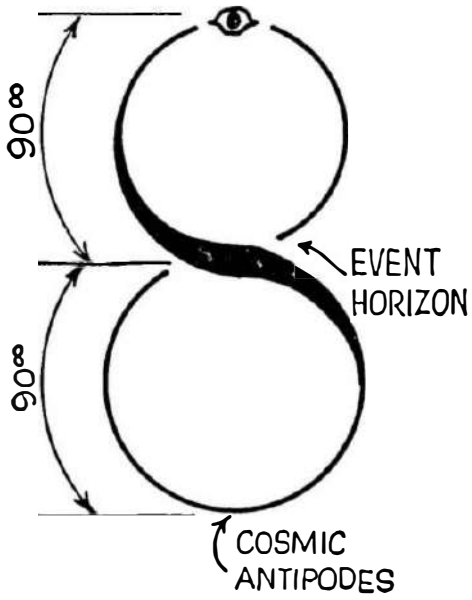
Shortly after passing through the universal equator, the *Enterprise* is seen to break up into innumerable replicas of itself, such as you see in photographs made through a multiple-image filter. The images diffuse from the central body as if the lens were zooming. Each replica is just out of register with every other replica, resembling the flux of radiant forms described by acid heads and other visionaries. Each of the radiating clones is doing something different. Just before the multiplying replicas of the *Enterprise* are lost in the glare of the heavenly white light, it is noticed that some of the clones are engaging in activities that bring an X-rating from the censors at the broadcast studio, so at this point, the newscast is interrupted until after prime time.

Definition breaks up at the end of the universe because the Black Hole is the entrance to the quantum field, the original Heaven and Hell. In the virtual state, nothing is real, everything is probable, and all probabilities are equally realizable. Which probability becomes real to a particular observer depends upon the angle of the image relative to the material body of the observer. Each of the probable *Enterprises* is perceived through the virtual telescope as an equally real/unreal replica.

The space where probable events are experienced as if they were real is the Land of Dreams, seen by your Third Eye as it scans hyperspace. You travel to the other side of the universe every time you go to sleep. What snapshots you bring back with you depends on how well you remember your dreams.

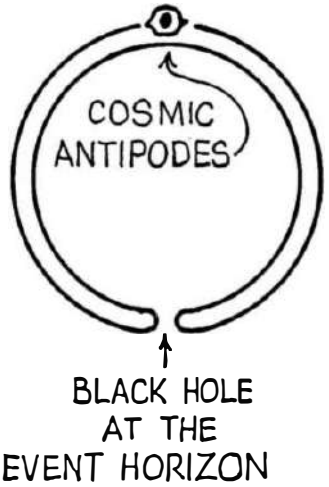
At the event horizon, your extension in real space is reduced to zero. Now, if you examine the horizon through your camera with various lenses, you will see that extension on the radial axis of the image is reduced to zero as you magnify the distance by longer focal lengths. Einstein told it like you can see it.

On the other side of the event horizon, extension is reduced to less than zero. This means that all distances are measured by a minus sign. You can see the reversal of distance on three axes of dimensions by inspecting the image through a view camera.



THE OPPOSITE HEMIHYPER-SPHERE CAN BE PROJECTED AS ANOTHER SPHERE TANGENT TO THE COSMIC SPHERE AT THE EVENT HORIZON. THE LINE OF SIGHT ROTATES 90° FROM HERE TO THE EVENT HORIZON, AND ANOTHER 90° FROM THERE TO THE THIRD POLE, MAKING A HALF TWIST FROM HERE TO THE END OF TIME, LIKE A MÖBIUS STRIP.

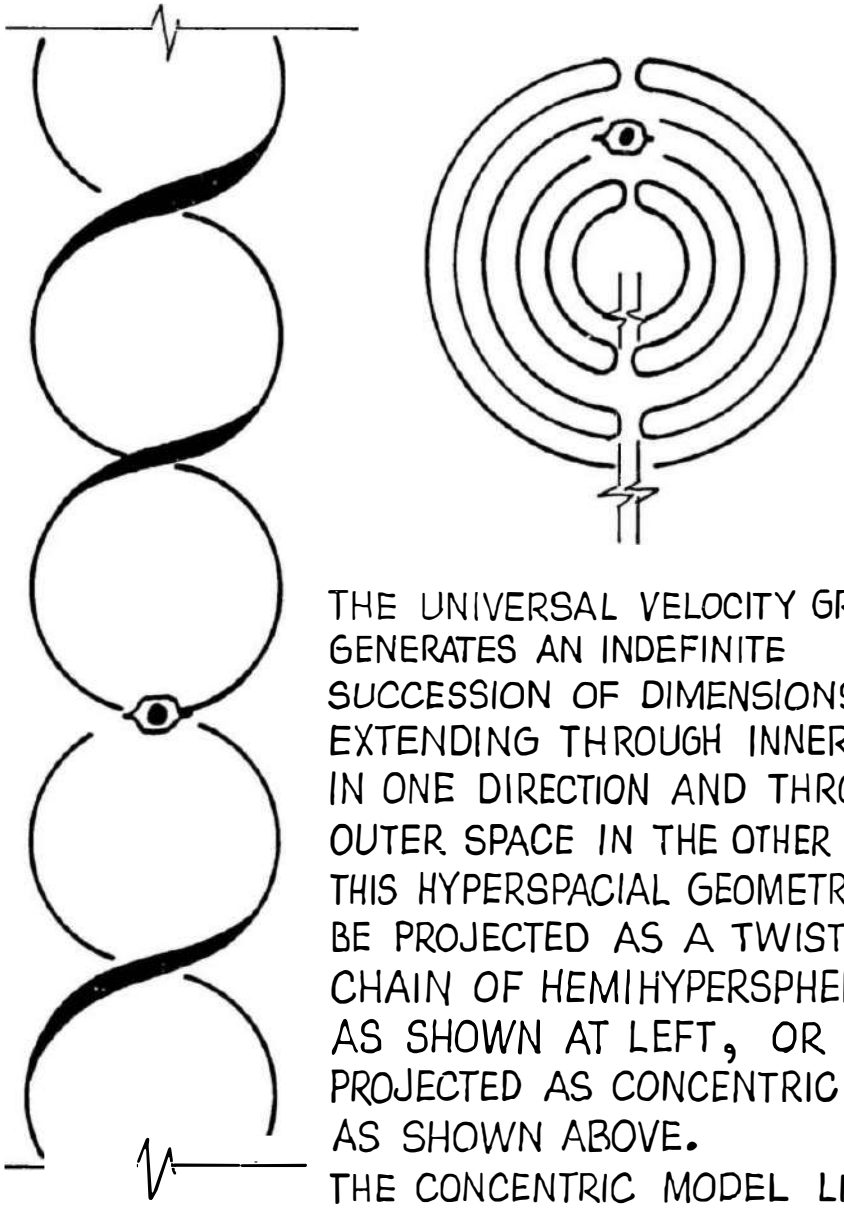
THE COSMIC HYPERSPHERE HAS 3 POLES



ONCE PAST THE EVENT HORIZON, THE LINE OF SIGHT RETURNS TO THE OBSERVER, IN REAL SPACE, WHILE THE HYPERANGULAR DISTANCE CONTINUES TO INCREASE TO 180°. THIS GEOMETRY CAN PROJECTED AS THE ANTIPODES LINING THE INTERIOR SURFACE OF OUR HEMIHYPERSPHERE. THE ANTIPODES EXIST IN THE INTERVALS BETWEEN THE INSTANTS OF OUR EXISTENCE.

BOTH OF OUR COSMIC HEMIHYPERSPHERES COEXIST IN THE SAME TRISPACE, LIKE THE FRONT AND BACK SIDES OF AN IDEAL MÖBIUS STRIP COEXIST IN THE SAME PLANE, SEPARATED BY PHASE ROTATION.

At the node of the universal lens, the *Enterprise* is seen to reverse its spacial orientation. Left is transposed to right, up becomes down, the rear moves to the front, the ship and everything in it turns inside out, and time begins to accelerate backward.



THE UNIVERSAL VELOCITY GRADIENT GENERATES AN INDEFINITE SUCCESSION OF DIMENSIONS, EXTENDING THROUGH INNER SPACE IN ONE DIRECTION AND THROUGH OUTER SPACE IN THE OTHER DIRECTION. THIS HYPERSPACIAL GEOMETRY CAN BE PROJECTED AS A TWISTED CHAIN OF HEMIHYPERSPHERES, AS SHOWN AT LEFT, OR ELSE PROJECTED AS CONCENTRIC SHELLS, AS SHOWN ABOVE.
THE CONCENTRIC MODEL LIKENS THE UNIVERSE TO THE CROSS-SECTION OF AN ONION. EXPLORING THE LINE OF SIGHT IS DESCRIBED AS UNFOLDING THE UNIVERSAL LOTUS BLOSSOM.

The hypersphere has the geometry of a Klein Bottle. At the hyperequator, the outside surface becomes the inside surface, like a hollow sphere with a hole connecting the inside surface with the outside surface. Although the hypersphere can be projected as two spheres joined at the point of contact, they are not arranged like a dumbbell—one is turned inside out to line the interior surface of the other.

Obviously, the farther you proceed into the Black Sky, the closer you are to home. But because you are now on the inside surface, you must go all

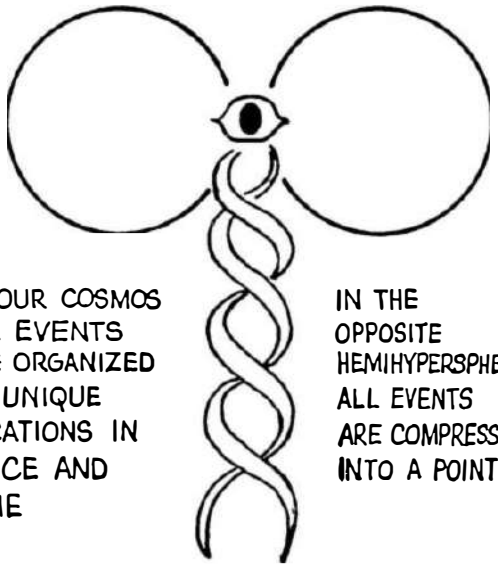
around the second hemihypersphere until you return to the Black Hole at your point of entry and emerge back into this hemihypersphere again.

The *Enterprise* that sailed through the Black Hole continues forever like a Flying Dutchman through successively higher orders of ultraspace as she traverses successive reaches of 90^{∞}. But there is a two-way flow of energy through the Black Hole. The *Enterprise* that returns to Earth is one of the replicas, and that particular replica is informed with just the correct memories to believe it has circumastrogated the universe. Is it not written that those who cross the River Lethe have their memories erased, to be replaced by memories proper for their next incarnation? Those who travel to the end of the universe never come back the people they were when they left. They return as changed people. Religious freaks who see the Light and believe they have been transformed by their Maker are describing their trip around the universe. Some of them were only taken around the world. Every sleep is a little death, and no one reawakens as the same person who entered Dreamland.

After traveling 270^{∞}, you can see the Earth once again through the portholes of the bridge deck. In your eagerness to reach home, you drive the *Enterprise* to the limit of its engines. But as you speed to Earth, you appear to be decelerating. We then remember that the Fitzgerald Contraction reverses on the return journey, and space expands. Therefore, each mile home is a bit longer than the preceding one. This is why all travelers will tell you that the last mile home is always the longest.

After the travel-worn *Enterprise* docks at Earthbase and the weary crew disembarks for debriefing, I poke my microphone into your face and ask how it felt to go through the fires of Hell, the illumination of Heaven, being turned inside out as time reversed, and reaching the third pole of the universe to plant the flag of the Galactic Federation, claiming the antipodes for all humankind.[1] You bring out the logbook and read the entries of the stardates. The *Enterprise* maintained its course dead ahead the whole time. No event horizon was encountered. There was no impenetrable barrier over the hemihyperspheric equator. Scientific laws proved constant the entire way, and time flowed with the same velocity it always does. There is nothing in the starry wilderness worth exploring further until the colonies eventually expand beyond the

[1]In the Galactic Federation, unhuman kind like Chewbacca still ride in the back of the space shuttle because somebody has to do the dirty work. The unity of all humankind with the consciousness of the Holy Sun is ordained by God, but equality with the inhabitants of the Dark Stars is blasphemy; any priest of the Church of the Holy Goat will tell you that. The egalitarian heresy of the rebel sect calling themselves Archers will not be tolerated.

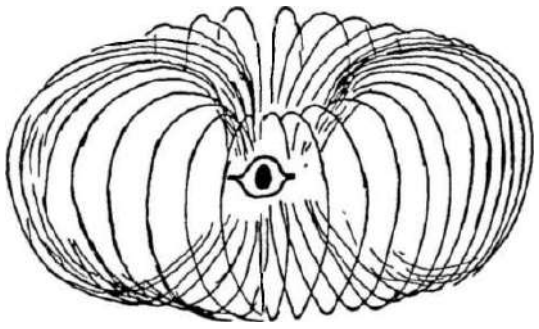


IN OUR COSMOS ALL EVENTS ARE ORGANIZED BY UNIQUE LOCATIONS IN SPACE AND TIME

IN THE OPPOSITE HEMIHYPERSPHERE ALL EVENTS ARE COMPRESSED INTO A POINT

IN ANOTHER PROJECTION, OTHER DIMENSIONS ARE REPRESENTED AS A DOUBLE HELIX PLUGGING INTO OUR COSMOS AT THE EVENT HORIZON. SINCE THE OPPOSITE HEMIHYPERSPHERE HAS NO EXTENSION IN REAL TIME AND SPACE, EVERY EVENT IN THE ANTIPODES OCCURS EVERYWHERE, ALL AT ONCE. SINCE THE OPPOSITE HEMIHYPERSPHERE IS COEXTENSIVE WITH OUR SPACE, THE COSMIC HYPERSPHERE MUST BE A HOLOGRAM.

IF EVENTS IN OUR HEMIHYPERSPHERE ARE ORGANIZED IN SPACIAL SEQUENCE, AND EVENTS IN THE OTHER HEMI-HYPERSPHERE ARE MUTUALLY COEXTENSIVE, THEN THE ORGANIZATION OF THE COSMOS CORRESPONDS TO THE ORGANIZATION OF INFORMATION AND FUNCTION BETWEEN THE TWO HEMISPHERES OF THE BRAIN. THE BRAIN IS A MINIATURE REPLICA OF THE COSMOS. OUR REALITY AND ALL OF US IN IT ARE IDEAS IN A UNIVERSAL BRAIN.



IF THE NEGATIVE SPACE OF THE OPPOSITE HEMIHYPERSPHERE HAS NO EXTENSION IN REAL SPACE, THE EVENT HORIZON MUST BE IN THE SAME LOCATION AS THE OBSERVER.
WHEN COSMIC GEOMETRY IS PROJECTED SO THAT ALL LINES OF SIGHT CURVE TO AN EVENT HORIZON AT THE OBSERVER, YOU CAN SEE THAT THE COSMOS HAS THE STRUCTURE OF A TOROIDAL FIELD. THE ATOM, THE PLANET, THE STAR, AND THE UNIVERSE ARE REPLICAS OF EACH OTHER.

Middle Sector by the natural process of uncontrolled birth combined with the equally natural process of unrestrained conquest. As you can see with your camera, the space that appears compressed at the horizon and reversed on a

ground glass viewing screen, turns out to be perfectly normal when you go over there to inspect it. And this is exactly the way the universe unfolds, as Doctor Einstein says it should.

Now, take a look at the structure of the two hemihyperspheres of the universe. In our material hemihypersphere, all events are ordered by sequence in time and space. In the opposite hemihypersphere, all events occur at the same place in no time, and all probabilities are equally real.

Now refer this to the discoveries of split brain experiments. In the left cerebral hemisphere, all events are ordered by sequence in space and time. In the right cerebral hemisphere, all probabilities exist as simultaneous images in the same place, diffused throughout the hemisphere as a hologram.

Your brain is a scaled-down replica of the entire universe. All explorations are equivalent to head trips. You can learn all there is to know about the universe by meditating on the reality of the situation. To know the universe is to know yourself. To know yourself is to journey to the end of the universe.

To be continued....